Diagnosing and Designing Organizational Infrastructure: Using a Distributed Perspective

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The Distributed Leadership Studies
http://www.distributedleadership.org

Funded by the National Science Foundation, Spencer Foundation, Institute for Education Sciences, & Carnegie Foundation
Key Ideas

- Beyond an implementation mindset: Improving practice involves the twin processes of diagnosis and design.
- Engaging the practice of leading and managing is essential.
- Taking a distributed perspective to the work.
- Attention to the formal (designed) organization and the informal (lived) organization.
A Distributed Perspective
Task One

❖ What does ‘distributed leadership’ mean to you?
❖ Write a one-sentence definition that captures your understanding of distributed leadership
A Distributed Perspective

The Leader-Plus Aspect
- Beyond the school principal and other positional leaders
- Focuses not only on who has responsibility but who takes responsibility

The Practice Aspect
- Centers on the practice of leading and managing
- Critical issue is not whether leadership is distributed but how it is distributed
The Leader-Plus Aspect

The leader-plus aspect acknowledges that:

❖ At times someone other than the principal takes responsibility and performs key leadership and management tasks

❖ The principal often works with others when taking responsibility and performing leadership and management tasks
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

“Being a good principal is like dancing that wonderful tango, blindfolded, yet serving lunch, breakfast and dinner on skates to 500 people,” [each of whom has] “ordered something different” [and each of whom] “brings… their own set of dynamics, personalities, that you have to be acutely aware of in order to serve them.”

Adriana
The Practice Aspect

Leaders
Administrators, Specialists, Teachers

Leading and Managing School and Classroom Practice

Situations
Tools, Routines, Structures

Followers
Teachers, Administrators, Specialists
From a Distributed Perspective...

- 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
- Need to attend to the formal and informal organizational infrastructure
A Distributed Perspective

- A diagnostic framework that draws attention to particular dimensions of leadership & management
- A design frame for guiding leadership and management improvement efforts
Dispelling Some Myths

- School principal is somehow less relevant
- Everyone is a leader
- The more leaders, the better
The “Heroics of Leadership” Genre

- The lure of leaders and their gallant acts
- The leader is center stage, while others play supporting roles
- This is a leader-centric model
Task Two

❖ With your critical colleague, compare and contrast a distributed approach to leadership with a heroic approach to leadership
❖ Identify key differences
❖ Identify what you as practitioners consider the two most critical differences
❖ Justify your choices carefully
Task Three

- Watch the brief video clip
- How many times does the white team touch the ball?
Using a Distributed Perspective for Diagnosing and Designing Organizational Infrastructure
Designed vs. Lived Organization

**Designed**

Formal positions, organizational routines as represented in formal documents and accounts

**Lived**

Organization as experienced in day-to-day life of organizational members
System & Organizational Infrastructure
The Formal/Designed Organizational Infrastructure: Organizational Routines

Diagnosis and Design Work
Organizational Routines are “repetitive, recognizable patterns of interdependent actions carried out by multiple actors.”

(Feldman & Pentland, 2003)
Organizational Routines

Advantages

❖ Allow efficient coordinated action
❖ Provide source of stability
❖ Reduce conflict about how to do work

Disadvantages

❖ Result in inappropriate responses
❖ Intertia, mindlessness, and de-motivation
Designing Organizational Routines

❖ **Adams School:** Breakfast Club, grade-level meetings, Teacher Talk, Teacher Leaders, Five-Week Assessment, Literacy Committee, and Mathematics Committee

❖ **Baxter School:** Cycle Meetings, Leadership Team Meetings, Literacy Committee, Math/Science Committee

❖ **Kosten School:** Report Card Review, Grade Book Review, Lesson Plan Review, Faculty Meetings, Grade Level Meetings

❖ **Kelly School:** Skill Chart Review, Professional Development
## Organizational Routines at Adams School

<table>
<thead>
<tr>
<th>Routine</th>
<th>Functions</th>
<th>Tools</th>
<th>People</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Five Week Assessment</strong></td>
<td>• Formative evaluation</td>
<td>• Standardized tests</td>
<td>• Language Arts Coordinator</td>
</tr>
<tr>
<td></td>
<td>• Teacher accountability</td>
<td>• Standards</td>
<td>• Assistant Principal</td>
</tr>
<tr>
<td></td>
<td>• Monitor instruction</td>
<td>• Student assessments</td>
<td>• Principal</td>
</tr>
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<td></td>
<td>• Teacher development</td>
<td></td>
<td>• Teachers</td>
</tr>
<tr>
<td><strong>Breakfast Club</strong></td>
<td>• Teacher Development</td>
<td>• Research Articles</td>
<td>• Teachers</td>
</tr>
<tr>
<td></td>
<td>• Build professional community</td>
<td></td>
<td>• Language Arts Coordinator</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Principal</td>
</tr>
<tr>
<td><strong>School Improvement Planning (SIP)</strong></td>
<td>• Identify instructional priorities &amp; resources</td>
<td>• Previous year SIP</td>
<td>• Administration</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• District guidelines</td>
<td>• Teachers (approved LSC)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Test score data</td>
<td></td>
</tr>
<tr>
<td><strong>Classroom Observations</strong></td>
<td>• Teacher development</td>
<td>• School protocol</td>
<td>• Principal</td>
</tr>
<tr>
<td></td>
<td>• Monitor instruction</td>
<td>• District protocol</td>
<td>• Assistant Principal</td>
</tr>
<tr>
<td></td>
<td>• Accountability</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Real Men Read</strong></td>
<td>• Student motivation and support</td>
<td>• Books</td>
<td>• Language Arts Coordinator</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Assistant Principal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Principal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Community Members</td>
</tr>
</tbody>
</table>
The Five Week Assessment Routine

❖ “We were just kind of casually saying that for the majority of teachers they all work very hard, but some of them get very low results when it comes to these achievement tests...So this [Five Week Assessment] was a way to find out ‘Are they learning?’” (Literacy Coordinator, 10/23/00)

❖ “The [standardized] tests...didn’t give us much information about what we could do to improve our scores because we received the results well after we could do anything about it. We thought that a more frequent assessment...would tell us where the children were.” (5/15/00)

❖ The Five Week Assessment enabled teachers to see “assessment as a tool for letting then know what they need to work on in the classroom. That was the goal.” (Principal Williams)
Task Four: Organizational Routines Inventory

Share your organizational routine inventory with your critical colleague.

❖ Identify a way in which you think one (or more) of the organizational routine(s) on your inventory influence work practice in your school so as to enable (or inhibit) one of your key school improvement goals

❖ Identify one take away from sharing your organizational routine inventory with your critical colleague
Two Aspects of Infrastructure

Ostensive or idealized aspect

- Broad scripts about how work gets done

Performative aspect

- The lived or informal organization

Five Week Assessment: Ostensive Aspect

1. Literacy Committee Identifies Needs & New Directions
2. Literacy Coordinator Plans Five Week Assessment Schedule
3. Literacy Coordinator Develops Assessments
4. Literacy Coordinator and Assistant Copy and Distribute Assessments to Teachers
5. Teachers Administer & Return Assessments to Literacy Coordinator
6. Literacy Coordinator and Assistant Score Assessments
7. Literacy Coordinator and Assistant Compile and
8. Literacy Coordinator Shares Scores with Administrators and Teachers & Plans Future Assessments

& Plans Future Assessments

Shares Scores with Administrators and Teachers & Plans Future Assessments
Changing Organizational Routines, Changing Practice

❖ “You close your door. You do what you want. You don’t know what everybody else is doing and it’s fine. Nobody else is interested. Nobody’s checking on you or even interested in what you are doing…but it changed since then. We work much closer together and I was a very quiet person…Until I was probably elected to…chair cycle. First of all, we probably were forced to do some exchange of ideas in—when it first started. Then people found it’s very helpful and nobody’s keeping anything as a secret so we share freely. And it helps.” (Teacher Interview)

❖ “Everybody did absolutely their own thing as far as literacy. Some people used the Basal series…we had different Basal series going in the building. A lot of people were going to a literature-based instruction. Nobody ever talked to each other. It was just—everybody went into their own room, closed the door and did their own thing. So we’ve tried to develop some common vocabulary and common ways of doing things.” (Teacher Interview)
Asking the Difficult Questions about Organizational Routines

❖ What is the theory of action behind the routine?
❖ What arguments explain and evaluate the routine?
  ❖ Why should it work?
  ❖ Why might it not work?
❖ What are the advantages of this routine?
❖ What are the disadvantages of this routine?
❖ How does it connect with classroom teaching and learning?
Task Five: Organizational Routines

Share your organizational routine diagnosis with your critical colleague. As a pair, you need to adopt a critical colleague perspective so that you genuinely help one another ask the questions essential for real diagnostic work. This real diagnostic work is the foundation for design and redesign work that will make a difference.

❖ Based on the feedback from your critical colleague, identify some key ways in which you would redesign the organizational routine

❖ Clearly justify your redesign to your colleague
How the Formal Organizational Infrastructure Matters in Everyday School Practice

Advice & Information Seeking in Schools
Central Actors

Color corresponds to staff role:
- Red: Reading/Writing/Language Arts
- Green: Math
- Blue: Science
- Orange: Social Studies
- Yellow: Special Education
- Cyan: 6th Grade
- Pink: Special Subjects
- Gray: Administration
Centrality

Color corresponds to staff role:
- Red: Reading/Writing/Language Arts
- Green: Math
- Blue: Science
- Orange: Social Studies
- Yellow: Special Education
- Blue-green: 6th Grade
- Cyan-blue: Special Subjects
- Grey: Administration

M² Math Coordinator
**Why Focus on Advice and Information Interactions?**

- Interactions among teachers matter for their instructional productivity
- On-the-job interactions associated with the transfer of advice and information - essential to knowledge development:

<table>
<thead>
<tr>
<th>Socialization:</th>
<th>Tacit Knowledge — Tacit Knowledge</th>
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</thead>
<tbody>
<tr>
<td>Externalization:</td>
<td>Tacit Knowledge — Explicit Knowledge</td>
</tr>
<tr>
<td>Combination:</td>
<td>Explicit Knowledge — Explicit Knowledge</td>
</tr>
<tr>
<td>Internalization:</td>
<td>Explicit Knowledge — Tacit Knowledge</td>
</tr>
</tbody>
</table>

Blau, 1957; Bryk & Schneider, 2002; Choo, 1998; Coburn, 2001; Daly & Finnigan, 2010; Elmore, 1996; Eraut & Hirsh, 2007; Frank, Zhao, & Borman, 2004; Hill, 2004; Little, 2002; Smylie, 1995, Spillane, 2004
Formal Organizational Structure and Advice and Information Interactions

- Teachers more likely to seek advice from others of **same gender and race**
- **Prior tie** strongly associated with having a current tie
- **Formal** leaders more likely to provide advice or information
- Teachers in the **same grade** more likely to receive or provide advice or information
- Teachers more likely to seek advice about a subject from teachers who reported **more PD** in that subject

Improving Mathematics Teaching & Learning: The Case of Auburn Park

❖ Redesigning system and school infrastructure:
  ❖ New mathematics curriculum
  ❖ Investing in professional development of teacher leaders for mathematics
    ❖ Math content knowledge
    ❖ Math pedagogical content knowledge
    ❖ Leadership
    ❖ Child Development
  ❖ Strategic selection of teacher leaders
  ❖ Creation of math coach position in 3 schools
  ❖ PLC/grade level organizational routines
  ❖ System level routines — tool box & arrays
Professional Development Case (John)

2009-10

2010-11

2011-12
Training as a Marker of Expertise

“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 to that I know focuses very heavily on, I like his beliefs and the way that he has his room set up and the way that he carries himself.”

Karen, 1st grade
Math Coach (Emily) Facilitates Staff Interactions
“[Emily] really wasn’t our facilitator [last year], though she was my co-worker, just a third grade teacher. I knew she had a wealth of knowledge, I just wasn’t in [her classroom], when she was teaching math. But, now that she’s moved into this math facilitator position, that’s different...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.”

Angie, Special Education
## Infrastructure Redesign Promoted Advice and Information Seeking in Mathematics

Average In-Degree for Teacher Leaders and Other Teachers, Auburn Park School District

<table>
<thead>
<tr>
<th></th>
<th>2009-10</th>
<th>2010-11</th>
<th>2011-12</th>
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<tbody>
<tr>
<td><strong>Toolbox Members</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(6)</td>
<td>1.60</td>
<td>2.80</td>
<td>5.67</td>
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<tr>
<td><strong>Fundamental Math</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants (9)</td>
<td>4.33</td>
<td>6.00*</td>
<td>6.00</td>
</tr>
<tr>
<td><strong>Math Coaches</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3)</td>
<td>6.33</td>
<td>16.33**</td>
<td>18.00</td>
</tr>
<tr>
<td><strong>Other Teachers</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(256)</td>
<td>1.54</td>
<td>1.54</td>
<td>1.36</td>
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* p < 0.05, ** p < 0.01
## Infrastructure Redesign Promoted Brokering in Mathematics

Average Betweenness for Teacher Leaders and Other Teachers, Auburn Park School District

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<th>2009-10</th>
<th>2010-11</th>
<th>2011-12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Toolbox Members (6)</strong></td>
<td>5.00</td>
<td>75.80*</td>
<td>48.86</td>
</tr>
<tr>
<td><strong>Fundamental Math Participants (9)</strong></td>
<td>32.44</td>
<td>144.33*</td>
<td>115.42</td>
</tr>
<tr>
<td><strong>Math Coaches (3)</strong></td>
<td>38.67</td>
<td>248.67**</td>
<td>222.97</td>
</tr>
<tr>
<td><strong>Other Teachers (256)</strong></td>
<td>10.85</td>
<td>24.81*</td>
<td>11.90</td>
</tr>
</tbody>
</table>

* p < 0.05, ** p < 0.01
Imagine you are introducing a new reading and mathematics curriculum in Kosten School. Compare the language arts and mathematics networks for the school.

- Identify one difference and one similarity that you believe are relevant to introducing a new curriculum in these subjects.

- How might your strategies for introducing a new approach to teaching differ for mathematics compared to language arts given these data?
Task Six (Middle)

Your school district is stressing the importance of vertical integration of the mathematics curriculum in the middle grades. Examine the advice/information networks for mathematics for the two school years at your school.

❖ What patterns do you notice that might be relevant to vertical integration?

❖ Do you see a problem at your school? If not, why not?

❖ If so, how might you go about addressing the problem?
Task Six (High School)

Imagine you are introducing a new program to teach reading across the curriculum/disciplines in Pink Hamlet and Fern Hill High Schools. Examine the curriculum advice networks in the two high schools.

❖ What patterns do you note that might be relevant to your program implementation efforts?

❖ Identify two differences between the two schools that you would consider in your implementation efforts

❖ How would your implementation efforts differ from Pink Hamlet school compared with Fern Hill High School?
Schools and School Systems: Science

Science Network 2012
Red nodes = Central office staff
Some Lessons about Teachers’ Ties

- Strong ties — enable the transfer of tacit, complex knowledge and facilitate joint problem solving
- Weak ties — enable the transfer of explicit knowledge
- Ties that span organizational boundaries allow for new information and minimize ‘group think’
- Boundary spanners, individuals that connect different subgroups, facilitate the implementation of new approaches
- Trust enables learning and supports improvement efforts
- Ties can be important for motivation
“We have one hunter and one gatherer... everyone else is a consultant.”
Moving Forward

❖ Get beyond an implementation mindset
❖ Embrace diagnosis and design work as essential to leading and managing
❖ Name and know the framework you will use
❖ Engage the entailments of a distributed perspective
❖ Focus on the designed (formal) and lived (informal) organization in tandem
More At:

http://www.distributedleadership.org