

# Principal's Research Review

Supporting the Principal's Data-Informed Decisions

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## Making Inroads in School Leadership Practice

By Jonathan Supovitz

**Y**ou know the old saying: If you don't know where you're going, any road will get you there. But recent research provides direction about the different paths that principals can take to support the improvements in teaching and learning that lead to increased student performance.

Both principals and researchers know well that it is very difficult to have a direct and demonstrable effect on a school's student learning outcomes. After all, principals don't regularly provide classroom instruction to students, but they do set the conditions for teaching and learning in a school and they do organize opportunities for teachers to develop themselves. In fact, the accumulation of the evidence in the literature suggests that although principals can have a detectable

effect on student performance, their influence is mostly mediated through other aspects of school life that affect what and how teachers teach in classrooms. But what are the key activities of principals that produce changes in classrooms and in student performance? And what are the contributions of other school staff members to student improvement?

### Key activities of school principals

An analysis of the evidence base points to three factors of principal practice that contribute to improvements in teaching and learning.

**Focus on mission and goals.** Principals play a major role in focusing the mission and goals of the organization. Many researchers see the key task of principal leadership to be

*Research shows that principals can take many paths to improve teaching and learning and arrive at improved student performance.*

## Just the Facts

- An emerging trend in the study of leadership looks beyond the principal toward an array of other people who either consistently—or situationally—take on a leadership role in schools (Spillane, 2006).
- In their review of the literature on teacher leadership, York-Barr and Duke (2004) found that relationship building and collaboration were the two foremost themes that emerged when they synthesized the research on teacher leadership activity.
- Researchers are beginning to unpack the ways in which teachers provide and seek assistance from one another through social networks and the influence of those instructional networks on school improvement efforts and outcomes (Frank, Zhao, & Borman, 2004; Supovitz, 2008).
- Using the research literature, Supovitz, Sirinides, and May (2010) found that principal leadership was a significant predictor of teachers' positive changes in instruction for both ELA and mathematics.
- We found that the largest and most significant relationship in the structural models was the effect of principal leadership on peer influence.

setting the broad vision and mission of the organization and linking goals to that mission. Leithwood (1996), for example, argued that setting organizational direction was one of the core tasks of transformational leadership. Hallinger and Murphy (1987) contended that instructional leadership focused first on defining the school mission through a clear vision of what the school was trying to accomplish. Similarly, Hallinger, Bickman, and Davis (1996) identified establishing a clear school mission as a central activity of instructional leadership.

***Develop an environment of collaboration and trust.*** The second factor is how principals encourage an environment of collaboration and trust in the building. Trust and collaboration point directly to the cultural heart of the school organization, and many studies identify principals as a central shaper of their schools' culture.

Bryk and Schneider (2002) used extensive survey data and case studies in Chicago to examine the connections between what they called "relational trust" and school outcomes, including student achievement. They defined relational trust as the social exchanges in schools defined by respect, personal regard, competence in core role responsibilities, and personal integrity. They found that the growth of relational trust in schools "fuels the multiple strands of the school-change process and thereby contributes to improved student learning" (p. 121).

Heck, Larson, and Marcoulides (1990) examined principal supervision and support of teachers. They found that higher performing elementary and high school principals worked collaboratively with teachers to coordinate their schools' instructional programs and solve instructional problems and supported staff development opportunities.

***Actively support instructional improvement.*** The third factor that has been consistently related to improvements in teaching and learning is the extent to which principals actively support instructional improvement. A final set of research on effective principal leadership emphasizes the importance of creating a learning ethos and providing more hands-on support for instruction. Leithwood, Jantzi,

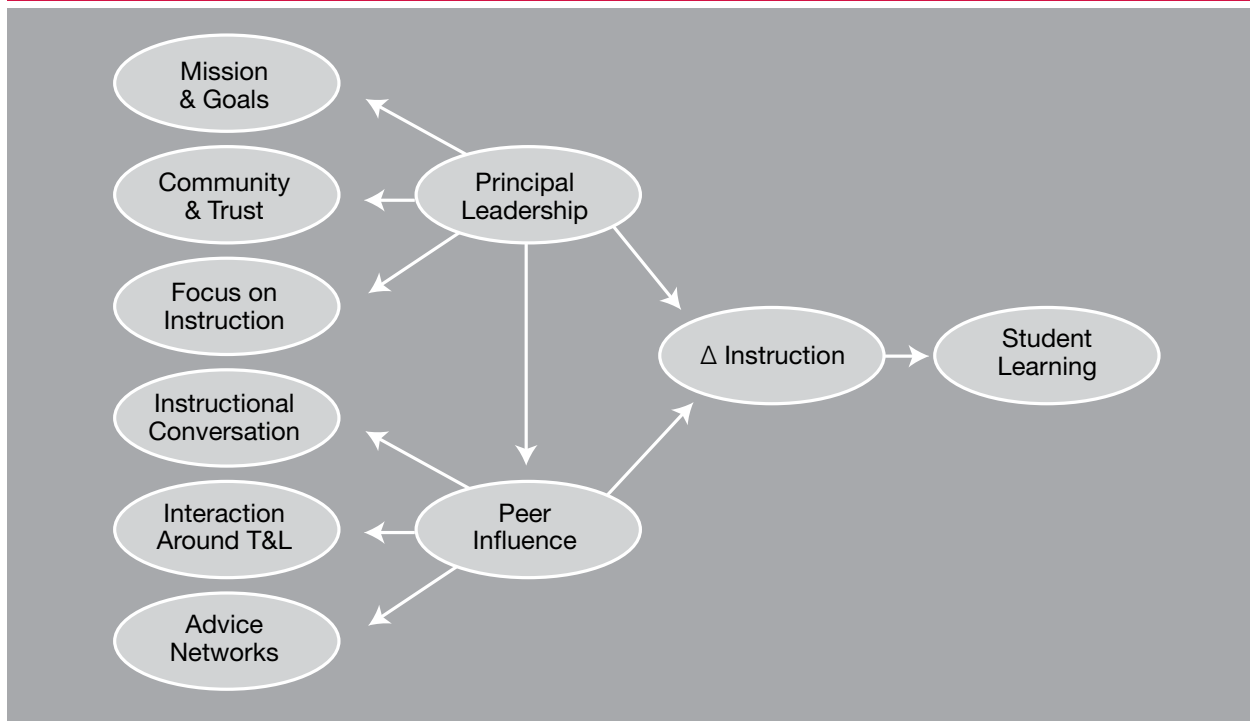
Silins, and Dart (1993) investigated how principals developed an instructional emphasis in schools. They found that principals who focused on developing an instructional vision, setting group goals, holding high expectations, and providing individual support for teachers positively influenced school culture and climate. Supovitz and Poglioco (2001) examined the instructional leadership practices of urban school principals implementing a comprehensive school reform model. They found that instructional leaders organized their schools around an emphasis on instructional improvement that was supported by a distinct vision of instructional quality; cultivated a community of instructional practice in their schools by creating a safe and collaborative environment for teachers to engage in and deepen their work; and reorganized their own professional lives, time, and priorities to support instructional improvement.

### Emerging Roles of Other Leaders in Schools

An emerging trend in the study of leadership looks beyond the principal toward an array of other people who either consistently—or situationally—take on a leadership role in schools (Spillane, 2006). Several key factors are emerging about how teachers influence their peers in educational settings. These include a collaborative interaction of faculty members around issues of teachers and learning and the development of instructional advice networks.

***Active interaction among faculty members around teaching and learning.*** An emerging finding in the teacher leadership literature is that teachers influence one another when they engage in collaborative discussions about their professional work. In their review of the literature on teacher leadership, York-Barr and Duke (2004) found that relationship building and collaboration were the two foremost themes that emerged when they synthesized the research on teacher leadership activity. LeBlanc and Shelton (1997) identified collaboration as the primary means by which teachers affected their peers. Wasley (1991) conducted a series of case studies of teacher leaders and found that those with the most

Figure 1. Relationships Among Principal Leadership and Peer Influence



influence worked collegially with other teachers to examine instruction and its effects on student learning. One key strategy by which teachers influence their peers is peer coaching, a practice that increases the transfer of professional development by having teachers do sustained work on what they have learned in professional development (Showers & Joyce, 1996).

**Strong instructional advice networks.** Another way that teachers influence their peers is through instructional advice networks. Researchers are beginning to unpack the ways in which teachers provide and seek assistance from one another through social networks and the influence of those instructional networks on school improvement efforts and outcomes (Frank, Zhao, & Borman, 2004; Supovitz, 2008). According to theories of social capital, individual and collective benefits accrue through dense and interrelated networks among individuals (Coleman, 1997; Burt, 2000; Lin, 2001).

### Principal Leadership for Teaching and Learning

Using the research and literature, Supovitz, Sirinides, and May (2010) developed a conceptual model that shows the relationships among the principal leadership and peer influence factors, as shown in figure 1. In the model, principal leadership is conceptualized as a construct made up of leaders' emphasis on mission and goals, emphasis on community and trust, and focus on instruction. The second construct, peer influence—so called to emphasize the act of teachers' influencing their colleagues rather than its leadership quality—is conceptualized composed of instructional conversations, interactions among faculty members around issues of teaching and learning, and instructional advice networks. Both principal leadership and peer influence are theorized to influence teachers' instructional practice, which is conceived to be directly related to student learning outcomes.

Each of the six constructs—the three making

up principal leadership and the three comprising peer influence—were constructed from survey data administered to teachers in grades 1–8 in 2007 from a mid-sized urban district in the southeastern United States. The district had 52 schools, including 30 elementary schools, 10 middle schools, 8 high schools, and 4 specialty schools. We collected data on principal leadership from teachers because we were more interested in how teachers experienced principal leadership rather than how principals intended it. Data on instructional practice was also collected from teachers, and the district provided student achievement data in mathematics and English language arts (ELA) in 2006 and 2007 and links that enabled us to connect teachers to their students. All in all, the data came from 38 elementary and middle schools, 721 teachers, and 11,397 students. To analyze the data, we used a statistical technique called structural equation modeling, which fits the actual data to the theorized relationships and produced correlations between the different constructs.

### Different Pathways of Influence

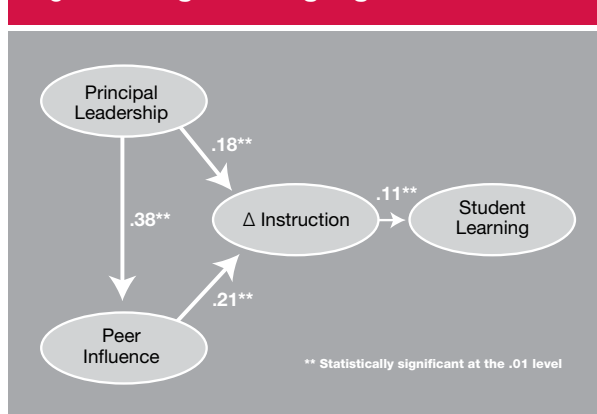
The findings of the research are shown separately in figure 2 (ELA) and figure 3 (mathematics). The figures depict the relationships between principal leadership, peer influence, change in instruction, and student learning in two ways. First, the thickness of each arrow provides a pictorial representation of the strength of that relationship. Second, the numerical representation is a standardized effect size that allows us to compare the strength of the relationships both within each subject and across subjects. Although this standardization allows for these comparisons, the direct meaning of each effect size becomes more abstract, and should therefore be roughly interpreted as small if about .20 or less and moderate if between .20 and .50. Effect sizes over .50 are considered large. The asterisks associated with the effect sizes indicate the level of statistical significance.

In ELA (figure 2) we can see that principals' influence on instruction (.18) is small to moderate and roughly the same as teachers' influence on their peers' instruction (.21). However, principals'

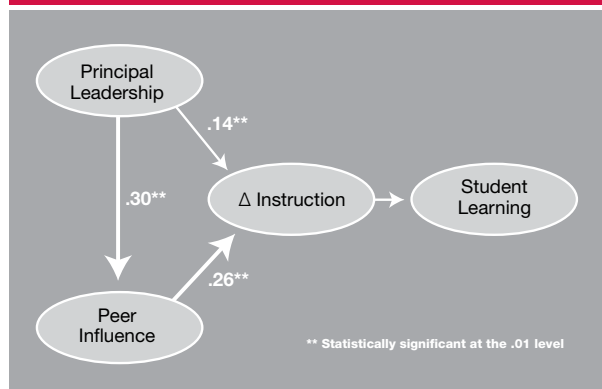
influence on teachers (.38) is twice the magnitude of their direct influence on teachers' change in instruction. Therefore, when aggregating both principals' direct influence on teachers' instructional practices (.18) and their indirect influence through other teachers (.38\*.21=.08), we gain a greater sense of the true magnitude of their influence on teachers (.26). School leadership, characterized in this model by the development of mission and goals, an environment of collaboration and trust, and a focus on instructional improvement, appears to foster an environment where teachers work together and constructively engage with each other around issues of teaching and learning. Finally, we see that teacher reports of change of instruction were positively correlated to student learning.

The patterns that predicted changes in instruction and student learning in mathematics were a little different. Principals' influence on changes in teachers' mathematics instruction were small (.14) but significant. They were about half the magnitude of the effect of teachers on their peers' mathematics teaching (.26), which is to say that higher levels of instructional conversation, interaction around teaching and learning, and advice networks among peer teachers were associated with increases in the amount of change in mathematics instruction that teachers report. Comparing principals' direct effects on instruction across the content areas, we noted that principals have both smaller direct effects in math-

**Figure 2. English Language Arts**



**Figure 3. Mathematics**



ematics (.14 compared to .18), but that the effect of peer influence on teachers is larger in mathematics as well (.26 compared to .21). This may have to do with principals' greater comfort directly supporting literacy than mathematics.

But the model in mathematics also shows that principals' influence on teachers (.30) was larger than either their direct effects on instruction or teachers' effect on instruction. Therefore, when combining principals' direct effects on instructional practice (.14) and their indirect effects on teachers' change in instruction ( $.30 \times .26 = .08$ ), we get a better sense of the magnitude of principals' influence on teaching (.22), which approaches the magnitude of teachers' direct effects on their peers.

### Roads to Improvement

Overall, we found that principal leadership was a positive and significant predictor of teachers' improvements in instruction for both ELA and mathematics. This suggests that principals who focus on instruction, foster community and trust, and clearly communicate school mission and goals help teachers make positive changes to their instructional practice. Even more, we found that the largest and most significant relationship in the structural models was the effect of principal leadership on peer influence. School leadership as characterized in this model fosters an environment where teachers work together and constructively engage with one another around issues of teaching and learning. Our model

also shows that peer influence was a positive and significant predictor of teachers' changes in instruction for both subjects. In our models, those instructional changes produced detectable learning gains in English language arts, but not in mathematics.

What does this mean for school leaders? This study reiterates previous research and also breaks new ground. As previous studies have shown, principals can have important and direct influences on teachers' instructional practices. But this research also shows empirically the different ways in which principals can work indirectly, both through direct support of teachers and by creating collegial conditions in their schools, to enable teachers to influence their colleagues to improve instruction and enhance student learning. In doing so, this research substantiates principals' instincts that an important part of their work is to create rich opportunities for teachers to have conversations and professional interactions around substantive issues of teaching and learning and to position teachers—through teams, professional learning communities, or other groupings—to allow for the sharing of ideas and expertise. If you know where you are going, these roads will take you there. [PRR](#)

### Breaking Ranks Connection

Teams and their performance are crucial to your school's success. In the past, schools were judged on the performance of individuals... Today, schools are judged by the achievement of all students. Success depends on the collective performance of the entire staff and teams of teachers working together to ensure the success of each student. The best school leaders create environments in which teams are able to flourish...

A good [school improvement] process will have the ability to motivate the entire school team around initiatives that are aligned not for the improvement of culture alone, but ultimately for improved student performance. It is at that point of improved student performance that the interconnectedness of the three core areas of Breaking Ranks—collaborative leadership; personalizing your school environment; and curriculum instruction and assessment—bring meaning to the process for change...

—*Breaking Ranks: The Comprehensive Framework for School Improvement*, p. 76

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## About the Authors

**Jonathan Supovitz** is an associate professor in the graduate school of education at the University of Pennsylvania in Philadelphia, and codirector of the Consortium for Policy Research in Education ([www.cpre.org](http://www.cpre.org)).

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