



Students
at the
Center



JOBS FOR THE FUTURE

DEEPER LEARNING RESEARCH SERIES

HOW SCHOOL DISTRICTS CAN SUPPORT DEEPER LEARNING

THE NEED FOR PERFORMANCE ALIGNMENT

By Meredith I. Honig & Lydia R. Rainey, University of Washington
October 2015

EDITORS' INTRODUCTION TO THE DEEPER LEARNING RESEARCH SERIES

In 2010, Jobs for the Future—with support from the Nellie Mae Education Foundation—launched the Students at the Center initiative, an effort to identify, synthesize, and share research findings on effective approaches to teaching and learning at the high school level.

The initiative began by commissioning a series of white papers on key topics in secondary schooling, such as student motivation and engagement, cognitive development, classroom assessment, educational technology, and mathematics and literacy instruction.

Together, these reports—collected in the edited volume *Anytime, Anywhere: Student-Centered Learning for Schools and Teachers*, published by Harvard Education Press in 2013—make a compelling case for what we call “student-centered” practices in the nation’s high schools. Ours is not a prescriptive agenda; we don’t claim that all classrooms must conform to a particular educational model. But we do argue, and the evidence strongly suggests, that most, if not all, students benefit when given ample opportunities to:

- Participate in ambitious and rigorous instruction tailored to their individual needs and interests
- Advance to the next level, course, or grade based on demonstrations of their skills and content knowledge
- Learn outside of the school and the typical school day
- Take an active role in defining their own educational pathways

Students at the Center will continue to gather the latest research and synthesize key findings related to student engagement and agency, competency education, and other critical topics. Also, we have developed—and have made available at www.studentsatthecenterhub.org—a wealth of free, high-quality tools and resources designed to help educators implement student-centered practices in their classrooms, schools, and districts.

Further, and thanks to the generous support of The William and Flora Hewlett Foundation, Students at the Center has expanded its portfolio to include an additional and complementary strand of work.

The present paper is part of our new series of commissioned reports—the Deeper Learning Research Series—which aim not only to describe best practices in the nation’s high schools but also to provoke much-needed debate about those schools’ purposes and priorities.

In education circles, it is fast becoming commonplace to argue that in 21st-century America, each and every student must aim for “college, career, and civic readiness.” However, and as David T. Conley described in the first paper in this series, a large and growing body of empirical research shows that we are only just beginning to understand what “readiness” really means. Students’ command of academic skills and content certainly matters, but so too does their ability to communicate effectively, to work well in teams, to solve complex problems, to persist in the face of challenges, and to monitor and direct their own learning—in short, the various kinds of knowledge and skills that have been grouped together under the banner of “deeper learning.”

What does all of this mean for the future of secondary education? If “readiness” requires such ambitious and multi-dimensional kinds of teaching and learning, then what will it take to help students become genuinely prepared for life after high school, and what are the implications for policy and practice?

We are delighted to share this installment in the Deeper Learning Research Series, and we look forward to the conversations that all of these papers will provoke.

To download the papers, executive summaries, and additional resources, please visit the project website: www.jff.org/deeperlearning.



Rafael Heller, Rebecca E. Wolfe, Adria Steinberg

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Students at the Center—a Jobs for the Future initiative—synthesizes and adapts for practice current research on key components of student-centered approaches to learning that lead to deeper learning outcomes. Our goal is to strengthen the ability of practitioners and policymakers to engage each student in acquiring the skills, knowledge, and expertise needed for success in college, career, and civic life. This project is supported generously by funds from the Nellie Mae Education Foundation and The William and Flora Hewlett Foundation.

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INTRODUCTION

School district leaders nationwide aspire to help their schools become vibrant places for learning, where students have meaningful opportunities not only to study core academic content but also to develop critical thinking and problem-solving skills, the ability to communicate effectively, and other capacities that are essential to success in later life. Some call this combination of knowledge and skills “deeper learning” (Hewlett Foundation 2012).

Historically though, school district central offices have been ill equipped to support such ambitious goals. For example, a host of major school improvement initiatives—from the “effective schools” movement to site-based management and comprehensive school reform—have stumbled, or failed outright, at least in part because central offices did not help schools implement these reforms successfully. Numerous studies of these and other initiatives conclude that productive participation by district-level leaders and staff is essential to bring high-quality teaching and learning to scale. But those studies generally do not elaborate on what productive participation entails or how to help central offices engage productively in districtwide teaching and learning improvement (e.g., Berends et al. 2002; Malen et al. 1990; Purkey & Smith 1985).

However, a new wave of research suggests that central offices can support the goals of deeper learning by making a genuine commitment—not just on paper but in all aspects of everyday practice—to what we call “performance alignment.”

Performance alignment does not mean that central office staff simply adopt a new organizational vision, that they agree to make decisions with the best interest of children in mind, or that they pledge to do their current tasks more efficiently. Rather, it means that they continuously scrutinize everything they do to ensure that they are spending their time and other resources on the *right work*: work that helps principals support teachers so that all students realize ambitious learning goals.

Central office staff working toward performance alignment recognize that they influence teaching and learning not directly but through their support for the many others

who do have more direct impacts on those outcomes. They strategically coordinate their work so that the individual parts of the district system operate in concert with one another, as opposed to working in separate silos or in competition for limited district resources.

Why should district central office leaders make performance alignment a key part of their efforts to help all students learn deeply? What, more specifically, does performance alignment entail, and how might district leaders move in that direction? We address those questions in this paper. First, we identify several challenges that district central offices often face when they try to support the improvement of teaching and learning districtwide. We then describe how pioneering districts are pursuing performance alignment. And we conclude by recommending specific strategies that can help school districts to realize deeper learning at scale.

We base our claims on intensive research in nine districts—which vary in size, demographics, and other characteristics—and on our experience as partners and advisors to another 17 central offices that have been engaged in implementing reforms consistent with performance alignment.

Our findings and observations point to the need for a fundamental redesign of most central office functions, as well as some major departures from business-as-usual for most if not all central office staff, especially those in human resources, curriculum and instruction, and principal supervision. Such reforms can be challenging, but they are likely to be necessary for school systems to realize deeper learning in all schools and for all students.

WHAT IS DEEPER LEARNING, AND WHAT DO CENTRAL OFFICES HAVE TO DO WITH IT?

For at least the past two decades, federal and state policymakers have called on school districts to hold all students to high standards, as part of a broader strategy to ensure that all students graduate from high school ready for college and career (Center for Education Policy 2004; Fuhrman 1999; Fuhrman & Elmore 1990; Hamilton et al. 2007; Kirst 1990; Kober et al. 2010; NGA, CCSSO, & Achieve 2008). This emphasis on high standards reflects the assumption that when schools *neglect* to define clear high standards for what students should know and be able to do, classroom instruction tends to lack rigor and quality, resulting in poor learning outcomes, low graduation rates, and inequities in educational opportunity. By contrast, when educators set high standards for all students, and when they truly believe that all students can meet them, they become more likely to create opportunities for all students to learn at high levels.

Recent school improvement efforts such as the Common Core and the Hewlett Foundation's deeper learning initiative are grounded in this theory of action. They aim to define ambitious learning targets for all students, both in specific academic content areas and—in the case of deeper learning—related to additional skills such as critical thinking, problem-solving, collaboration, communication, and the ability to direct one's own learning (Hewlett Foundation 2012; Huberman et al. 2014; National Research Council 2012).

At the same time, many researchers have found that while high standards and expectations set the stage for student success, the *in-school* factors that tend to have the most powerful influences on student learning are teaching and principal leadership (Goldhaber et al. 1999; Grissom et al. 2013; Rivkin et al. 2005; Rockoff 2004; Robinson et al. 2008; Sebastian & Allensworth 2012; Supovitz et al. 2011). For example, Hanushek (1992) has found that students assigned to very high-quality teachers learn far more than peers assigned to very low-quality teachers, ending the school year up to a full grade level farther along. And principals influence classroom instruction in a number of ways, such as by establishing a climate conducive to learning, ensuring quality professional development for

teachers, and providing ongoing feedback to help teachers improve their practice (Grissom et al. 2013; Sebastian & Allensworth 2012).

But what about district leaders and central office staff? How much and what kinds of influence do they have on teaching and learning?

Others have recounted some general roles central offices play to ensure teachers and principals have basic supports to succeed in their work (Knapp et al. 2010; McLaughlin & Talbert 2003). For example, in districts of all sizes, schools tend to rely on their central office staff to provide professional learning opportunities and to identify and procure standards-based curriculum materials. Further, while school principals in many districts have the authority to select their own teachers, the pool of available candidates is often shaped by central office systems of teacher recruitment, hiring, and retention (Odden 2011). But districts carry out these functions also in districts that do not significantly advance student learning. What, more specifically, do central offices do when they provide professional learning, recruit and select teachers, and otherwise engage in their work in ways that seem consistent with supporting the ambitious results of deeper learning for all students?

Little Research or Policy Attention on Central Offices

In past decades, district central offices appeared mainly in the background of studies that focused on schools and mainly as impediments to school improvement (Berends et al. 2002; Malen et al. 1990; Purkey & Smith 1985). The few researchers who did focus on central offices did so not by deeply investigating what actually went on within central offices but, rather, by using available datasets to identify a handful of district-level characteristics that appeared to be statistically associated with positive school outcomes. More recently, attention to districts has increased somewhat, with researchers using qualitative and mixed-methods approaches to study district effectiveness. However, most have described the influence of “the district” as a whole on school improvement efforts, and they have reported their findings in terms of broad categories of district action, such as “leadership,” “vision,” or “policy alignment,” that, they argue, matter to school results (e.g., Togneri & Anderson 2002).

Because such methods leave the inner workings of central offices unexamined, researchers have been able to provide few insights into the specific and various ways that district central offices influence teaching and learning. For example studies have made no distinctions among the myriad district-level staff members whose actions might have differing impacts on school outcomes (Spillane 1998). Nor have they addressed why some districts that engage in particular actions, such as policy alignment, fail to see the positive results that have been observed in other districts (Corcoran et al. 2001).

Likewise, attention to school district central offices has been largely absent from recent policy debates about education reform. For example, the Education Commission

of the States lists over 70 issues in its database of K-12 education policy topics, research, and resources, but not one of them relates to how the central office can better support school performance (ECS 2015). Similarly, many foundations and state and federal policymakers have chosen to bypass central offices altogether and work directly with schools, as was the case with both the small schools movement and school improvement grants (Busch et al. 2004; Yatsko et al. 2012).

Limited Central Office Support for Teaching and Learning

The lack of attention to central offices’ contribution to teaching and learning makes sense in light of their history. In the early 1900s, rural leaders formed central offices largely to help raise the local funds required as a precondition to receiving newly authorized federal support for schools (Mirel 1990; Steffes 2008). And urban leaders created them mainly to manage burgeoning enrollments and handle business functions. Their participation in teaching and learning matters usually extended only to ensuring that teachers were properly licensed.

Earlier, in the late 1800s, superintendents had typically functioned as districts’ head teachers, with authority over the curriculum. However, as the organizational ideal of “scientific management” gained prominence, in the first decade of the 1900s, central offices came to focus mainly on ensuring the efficient use of resources and on monitoring compliance to regulations; the role of the superintendent followed suit (Bjork & Kowalski 2005). And for the better part of the last century, central offices built up their capacity in those non-instructional areas, spurred in part by federal and state funding streams that treated local educational agencies as little more than fiscal pass-



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throughs for school funding (Marsh 2000). Additionally, in the 1960s and 70s, superintendents found themselves under growing pressure from civil rights leaders, teachers unions, and federal and state governments to share decision making with educators at local schools, which further eroded their influence on teaching and learning, even with regard to operational matters.

Considering these origins, it is no surprise that when, in the late 1980s and early 1990s, central offices were called upon to help implement standards-based reform and other ambitious efforts to improve the quality of classroom teaching at scale, their capacities turned out to be poorly aligned with this new role. For instance, in 1991, the National Council for the Teaching of Mathematics issued professional teaching standards that required a fundamental shift in pedagogy, from an emphasis on the memorization of mathematical procedures to efforts to deepen students' understanding of mathematical concepts and their applications. But central office staff tended to assume that the introduction of these ambitious teaching and learning standards entailed only modest changes to their own work (Honig 2004; Spillane 1998, 2000). Even those staff who were explicitly charged with supporting high-quality teaching—such as coordinators of professional development services—tended to lack the experience and resources required for realizing such outcomes (Hubbard et al. 2006).

Why Central Offices Struggle to Support Improvements in Teaching and Learning

When district central office leaders do aim to shift their roles to support ambitious teaching and learning, the misalignment of central office resources, data, and other systems to those demands can frustrate their efforts. For one, competition and lack of coordination within central office units can impede their support for teaching and learning improvement. For instance, one midsized urban district with which we partner, provided its teachers with state of the art professional development in mathematics for many successive years. Experts agreed that the live and video-based coaching and the intensity of the supports

likely contributed to significant improvements in students' performance in mathematics on standardized tests across virtually all grade levels, for several years. However, to provide this support, central office staff used well over half of the days available for teacher professional development, as well as most of the allotment for substitute teachers, leaving few resources for other subject areas, such as English language arts and science. Student learning outcomes actually declined in those other areas during this period.

A second reason central office leaders struggle to support the improvement of teaching and learning at scale relates to limitations of available data for targeting resources for improvement. For example, in one district that participated in our research, staff in the curriculum and instruction (C&I) department¹ initiated a major effort to provide professional development for teachers in schools with the greatest need, as determined by a new system that placed schools into four "tiers," based on their students' performance on standardized achievement tests. C&I staff targeted their most intensive supports to schools ranked at Tier 1—those that did not adequately improve student performance for several years—and they offered fewer and fewer supports up to Tier 4, which included schools whose test scores revealed strong performance and growth.

The district superintendent and school board praised the tiered system as an example of using data wisely to target limited resources to areas of greatest need, and other districts copied the approach. In our analysis, however, we found that many of the Tier 1 schools already had a significant number of teachers performing at a high level, as well as on-site teacher leaders who were providing enhanced professional learning opportunities to their peers—thanks to a separate initiative that had directed strong teaching candidates to those schools. The principal of one Tier 1 school reported that he now had more resources for professional development than he really needed, and his teachers were telling him that the district's required professional development sometimes took time away from learning opportunities that they found more

¹ We use the title "curriculum and instruction" to refer to the central office department charged with supporting the curricular and instructional needs of a district's teaching staff for example by adopting curricular materials and providing professional development. Other common titles for this department include "instructional services" and "teaching and learning." Very small districts tend not to have full curriculum and instruction departments but still have someone or a subset of administrators handling those functions.

meaningful. Other school leaders, too, reported that the professional development the district provided to Tier 1 schools was too rudimentary to meet the needs of many teachers who were actually teaching at a higher level of quality than suggested by student test scores.

Central office staff acknowledged this problem. However, because they lacked reliable access to data that might better inform them about the actual quality of teaching in each school, they could not figure out how to provide services that aligned with teachers' actual learning needs. We find such mismatches between teacher quality and professional development opportunities to be common in many school districts. Further, we have observed that C&I staff sometimes engage teachers in professional development without first consulting with principals to determine whether the support fits with the school's overall efforts to strengthen teaching practices.

Third, systems for the hiring and placement of personnel in many school districts do not function in ways that support improved teaching and learning. For example, in many of the mid-sized districts with which we work, it has long been standard practice for HR staff to screen teaching candidates' credentials very lightly before passing them along for principals to consider. As a result, for each vacancy, a principal might receive files for anywhere from 50 to 100 candidates, forcing them to waste precious time looking through applications that the HR staff should have been able to exclude from the start. Further, while some of the remaining candidates might be a good fit for the given position, a cursory screening process does little to identify those whose instructional strategies and experiences are most aligned with deeper learning. Principals report that due to such slow and cumbersome hiring practices, they have lost promising candidates to other schools and districts. Districts with such systems also often end up spending significant professional development resources bringing teachers up to a basic level of performance—

resources they could have used elsewhere, had they hired teachers with higher demonstrated performance and a better fit at the outset.

Fourth, central office staff who supervise principals have rarely provided them with the kinds of intensive supports that can help them lead for instructional improvement (Honig 2013; Honig & Rainey 2014). In many districts, principal supervisors devote much of their time to monitoring principals' compliance with various central office directives. Or, they serve as all-purpose liaisons between the central office and schools, following up on requests from either party and filling in for non-responsive central office staff. For instance, in one of the districts that we have studied, HR staff were so slow to assign teachers to schools that the principal supervisors decided to step in and make those staff assignments (Honig et al. forthcoming). Not only did this mean that they had less time to do their own jobs—working directly with principals—but it also had the effect of shielding the other staff from the consequences of their low quality of service to schools, likely prolonging the office's dysfunction.

These problems with the resources, data, and systems within central offices have deep roots, and they will not be resolved by the kinds of actions that districts typically take in response to calls for ambitious teaching and learning standards.

For example, to support the implementation of the Common Core, many districts are now working to align their professional development and curricular resources to the new standards. However, in part because the standards are organized by content area such as mathematics and English language arts, this can easily have the effect of reinforcing organizational silos and encouraging even more competition among them, thereby diluting the overall quality of professional development. Ideally, central offices would provide such services based on data about the actual capacity and needs of the teachers, administrators, and



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staff in their schools, and not by assuming that resources should be channeled to particular subject areas. Further, in many districts, leaders assume that efforts to improve teaching and learning belong largely within the purview of the C&I department and overlook the importance of the personnel recruitment and selection functions played by HR, or the pivotal roles played by principal supervisors to the improvement of teaching and learning.

In a potentially promising development, some district, leaders have begun to assign cross-functional teams—including representatives from several central office units—to work together to support teaching and learning in a cluster of schools. Such teams may be able to build

bridges among organizational silos, and we find that they sometimes lead to better working relationships between principals and individual central office staff members. However, like the traditional forms of principal supervision mentioned earlier, such teams also can perpetuate unaligned systems by essentially buffering their home units from challenging engagements with principals that might have otherwise created urgency for deeper changes.

Given the significant barriers to central offices' ability to support deeper learning, are advocates on a fool's errand when they call on central offices to do so, or—as we argue in the next section—is it realistic to pursue meaningful improvements?



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WHAT CAN CENTRAL OFFICES DO TO SUPPORT SYSTEM-WIDE DEEPER LEARNING?

Some districts have succeeded in confronting the mismatch between the ambitious goals of deeper learning and the long-standing limitations of central office staff capacity and systems. In so doing, their leaders have demonstrated that this work requires not just tinkering with central office staff and systems but transforming them (Honig 2013).

We conducted one intensive study of three districts that tackled the problem of central office performance misalignment head on (Honig et al. 2010), as well as another six districts that aimed to use findings about those districts and other research to inform their own central office transformation efforts (Honig et al. under review). We also currently partner with an additional 17 districts and their support providers across the country to help them use the emerging knowledge base about central office performance improvement and to learn from the experience of pioneering districts.

We find that central office staff can do much to ensure that their daily work meaningfully supports principals as they enable teachers to help all students realize ambitious learning goals. Further, they can strategically coordinate their work with that of others throughout the district so that the individual parts of the district system operate in concert with one another, again toward the goal of engaging all students in deeper learning.

Our research and district partnerships reveal that such performance alignment entails a fundamental redesign of

many central office functions, with particular attention to C&I, HR, and principal supervision. Below, we draw upon our own research on performance-oriented central offices (e.g., Honig et al. 2010; Honig 2012, 2013, 2014; Honig & Rainey 2014; Honig et al. forthcoming) as well as our other experience with districts to describe three main design elements common in districts pursuing performance alignment:

- Define high-quality teaching and principal and teacher leadership;
- Ensure that principal supervisors are truly focused on supporting principals' instructional leadership growth; and
- Enable all district staff to focus their time and other resources on activities that support schools' pursuit of deeper learning.

Although the districts with which we work have not been pursuing deeper learning per se, they have been working toward much the same goals, and their experiences provide important lessons for other central offices interested in supporting ambitious teaching and learning.



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Define High-Quality Teaching and Principal Instructional Leadership

District Priority #1

- Include a manageable number of elements or a process for use that involves selecting certain elements to focus growth
- Distinguish elements by their proximity to student learning
- Differentiate definitions by type of staff member when appropriate (e.g., grade level)
- Use in the context of process that helps users develop a shared understanding of the definitions

Districts that align to performance, like performance-oriented organizations in other arenas, clarify their performance target, in this case the kinds of teaching that have been linked, theoretically and empirically, to deeper learning. These districts also clarify the proximate supports for realizing that target—here, school principals as supports for teachers and high-quality teaching, or what some call “instructional leadership.”

At the school level, clear and explicit definitions set the stage for teachers and principals to develop a shared understanding of (1) the kind of teaching they aim to develop and (2) what principals can do to support it. Such joint sense-making is fundamental to professional learning, providing educators with a common image, or mental model, of the kind and level of performance to which they aspire, and which they can use to guide improvements in their practice (Collins et al. 2003). We have found that teachers and principals are likely to benefit from district improvement efforts when they have opportunities to participate in defining their professional standards and deciding which of them to prioritize (e.g., Turnbull et al. 2015; Honig et al. 2010; Honig 2013).

Definitions of high-quality teaching and principal instructional leadership can also function as important tools to support performance alignment in central offices. For example, school districts that have successfully improved the quality of the teachers and principals that they hire use such definitions to focus recruitment, screening, and selection processes, and they frequently use performance

tasks to gauge how well a candidate performs in relation to those targets. In so doing, these districts not only set themselves up to hire teachers who perform at a relatively high level of quality at the outset but they also get to know each candidate in ways important to ensuring the right fit between candidates and leadership and teaching assignments (Odden 2010; Turnbull et al. 2015).

Common definitions also help staff of C&I units to design, provide, and assess professional learning opportunities. For example, in one of our partnership districts, C&I staff created a teacher evaluation system that scored teachers on the extent to which their teaching reflected the standards in their instructional framework (i.e., their definition of high-quality teaching), and the results informed their decision to target professional development on particular forms of inquiry across the content areas. And in an example from one of our original study districts, principals reported that thanks to their new instructional framework, they knew precisely what their supervisors were looking for when they observed teachers in their schools, and they now had a common language for discussing the quality of teaching and how to address concerns (Honig et al. 2010).

Just as important, a common definition of high-quality teaching and principal leadership allows for joint strategic work *within* and *between* central office units, since it enables staff to see how they contribute to the district's overall strategy for improving teaching and learning. For example, in one of our partner districts, C&I and HR staff are participating in a series of strategic planning sessions to decide on common data they can use to inform professional development and the reassignment of teachers and principals, especially at their chronically low-performing schools. Staff have commented to us that before they had a shared definition of high-quality teaching, their conversations mainly focused on sharing information about what the other units were doing; now, staff more carefully scrutinize the extent to which each is contributing to an overall approach at each school likely to realize common targets related to improving teaching quality.

But the extent to which such definitions help anchor performance alignment depends in part on the quality of the definitions themselves, and on the ways in which staff use them.

For example, many definitions of high-quality teaching and leadership are so long that they do not adequately focus teachers, principals, or central office staff on common performance targets. Emerging research reinforces the importance of choosing a manageable number of teaching and leadership practices to anchor observations and improvement efforts. Districts that do so tend to amass detailed information that they can use to provide intensive and useful feedback for teachers and principals (Grissom et al. 2013; Honig et al 2010). On the other hand, when staff try to use too many elements to guide their work, they risk focusing on none of them at a level of depth adequate to support improved practice.

Many teachers and principals in our partner districts report that when district staff neglect to prioritize their goals, they tend to resort to checklist-style observations—simply marking off whether or not they see evidence of particular practices, rather than collecting the detailed information about classroom teaching and principal leadership that would allow them to provide meaningful feedback or assess the value of a particular professional development strategy.

Further, while district frameworks might include some teaching and leadership practices that are supported by research, they might also include some that are not. For instance, they might emphasize the use of complex questions to generate classroom discussion, which has been associated with deeper learning of mathematics, science, and other content. But they could also give priority to teachers' participation in professional learning communities, which have been found to have less proximate influences on student learning. Similarly, many definitions of high-quality principal leadership include vaguely defined actions such as "providing feedback to teachers," which

hardly specifies what principals actually *do* to contribute to improvements in teaching and learning. And as Venkateswaran (2015) has demonstrated, some feedback can actually have a negative impact on teacher learning.

The generic nature of such frameworks also poses problems. For instance, the teaching moves shown to be effective in secondary science instruction are not necessarily the same as those found to promote student learning in elementary mathematics (Franke et al. 2007; Windschitl et al. 2012). Similarly, leading a secondary school involves practices that can differ from those associated with elementary school leadership. And while individual principals sometimes have a direct influence on the quality of teaching, a growing strand of research suggests that successful principals often cultivate the leadership of teachers to grow their own and their colleagues' practice (Portin et al. 2009). Yet, in coming up with their definitions of high-quality principal leadership, districts often neglect to make these and other important distinctions.

In sum, districts that align their performance to the goals of deeper learning are careful to adopt specific, shared, and research-based definitions of high-quality teaching and principal leadership.

However, while such definitions of high-quality teaching and leadership are necessary, they are hardly sufficient. In order to see real gains, district leaders need to address the *entire* central office's performance, asking themselves: What would the office look like if it were truly designed to support instructional leadership, high-quality teaching, and—ultimately—deeper learning? Currently, are staff engaged in work that is not in service of such results? And, beyond simply helping them do their current work more efficiently, what can be done to engage them in the right work?



In order to see real gains, district leaders need to address the entire central office's performance, asking themselves: What would the office look like if it were truly designed to support instructional leadership, high-quality teaching, and—ultimately—deeper learning?

Ensure That Principal Supervisors are Truly Focused on Supporting Instructional Leadership

District Priority #2

- Define the role as a dedicated support to principals' growth as instructional leaders
- Reinforce the focus of principal supervisors on the specific teaching moves that research has associated with improved instructional leadership
- Develop a system of support for principal supervisors to develop their expertise

To become true leaders of teaching and learning improvement in their schools, principals often need intensive and personalized supports, which district principal supervisors are in unique positions to provide (Honig et al. 2010; Rainey & Honig forthcoming).

In our work, however, we have found that principal supervisors typically spend the bulk of their time engaged in tasks such as monitoring schools' compliance with federal, state, and district policies, running interference for ineffective central office units, and conducting principal evaluations—none of which supports principals' growth as instructional leaders. Nor does the size of the district seem to matter. In small school systems, one might expect to see more personalized attention to principals' needs. But we have found that supervisors in smaller districts (where the role typically falls to superintendents or directors of teaching and learning) also spend their time mainly on operational issues and evaluation. That is the case even among superintendents who say that they have a responsibility to provide principals with feedback and other supports to help them strengthen their instructional leadership (Honig et al. forthcoming).

Viewing principal supervisors as an important but largely untapped resource, districts pursuing performance alignment take deliberate steps to reduce the amount of time supervisors spend on operational and regulatory functions and shift their focus toward improving instruction. In turn, supervisors have the greatest impact on their districts when they dedicate their time to specific teaching strategies such as modeling effective instructional leadership, both in one-on-one settings and in professional learning communities (Honig et al. 2010; Honig 2012; Honig & Rainey 2014; Rainey & Honig forthcoming; for a summary of research findings into principal supervision, showing an association with improved performance, please see: www.dl2uw.org/principal-supervisor-performance-standards.html).

Such supervisors are careful not to skip over the principal and work directly with teachers instead, in an effort to have a more immediate impact on the quality of teaching and learning in local schools. We have found that when they do so, they miss important opportunities to support principals, resulting in weaker instructional leadership over the long term, as well as undermining the overall coherence of teachers' professional learning opportunities (Honig et al. 2010).

Supervisors can become progressively more capable of helping principals only if they receive ongoing support, too (Rainey & Honig forthcoming). We find that it is particularly important that their own district leaders protect their time, taking other tasks off of their plates so that they can focus on working intensively with principals. Further, they should be assigned a manageable caseload—we estimate that this consists of between 8-12 principals per supervisor, assuming that those principals have varying levels of expertise as instructional leaders and need varying amounts of assistance (Honig 2013). And we find that is important that supervisors receive intensive professional development as well, in order to perform their role effectively (Honig et al. forthcoming).

Ensure that all District Staff Members Focus Their Time and Other Resources on Activities that Support Schools' Pursuit of Deeper Learning

District Priority #3

- Ensure that all central office work meaningfully contributes to a common theory of action related to improving the quality of classroom teaching and ultimately student learning.
- Start with the redesign of C&I and HR:
 - » Generate rich, meaningful data about the quality of teaching and leadership in every school relative to the districts' standards, strategic plan goals, and the school's improvement goals. Promising systems for generating such data include decision- or question-oriented data dashboards and school improvement planning processes that lead schools through such data gathering.
 - » Encourage the collaborative use of such data by staff of C&I, HR, and schools, as well as by principal supervisors, to identify capacity gaps and promising points of leverage for broader improvements in teaching and learning. Points of leverage include the strategic movement of staff to ensure better fit between person and position and the provision of high-quality professional learning opportunities.
- Engage non-instructional units in ensuring that their work, too, contributes meaningfully to a common theory of action about how every aspect of central office work, singly and with others, contributes to improvements in teaching and learning.

In our research, we have found it to be critical for principal supervisors to have the time and support they need to work intensively with principals, helping them understand what it entails to provide effective instructional leadership. But it is also critical that their efforts align with the work going on across the district. In order to have a positive impact, they must be working in synch with the rest of the central office, with everybody reaching across traditional silos to pursue a common theory of action about how to realize deeper learning for all students (Honig 2013; Honig et al. 2010).

As noted above, we find it to be particularly important that principal supervision be well aligned with the work of C&I and HR. Misalignment with C&I means that supervisors are unable to draw on other professional learning resources

to help principals. And misalignment with HR means that supervisors often end up diverting their attention from supporting principals to performing whatever HR duties are not getting done correctly, efficiently, or at all.

Further underscoring just how important HR units are to school improvement, in our most recent district partnerships, we have observed that the strategic movement of principals—either to different schools or out of the principal corps altogether—can be just as impactful as efforts to provide them with high-quality professional development. When HR systems make it difficult or impossible to reassign or remove principals, supervisors can end up spending an inordinate amount of time trying to help leaders who require far more assistance than they can provide, leaving them with less time to help others.

In central offices aligning to performance, district leaders carefully scrutinize the work of all staff members to ensure that they contribute meaningfully to leadership, teaching, and learning. And all means all. Particularly in our original study districts, leaders helped each and every staff member to identify aspects of their work that did nothing to support high-quality teaching and learning—whether directly or indirectly—and helped them find ways to align their work more tightly to that goal (Honig et al. 2010). In the process, leaders sought to eliminate systems and tasks that seemed outdated or unnecessary, redirecting the resources to tasks that are more essential to the improvement of teaching and learning (Plecki et al. 2010). In effect, they found ways to maximize the benefit of central office functions relative to their cost, addressing the familiar concern that districts tend to be top heavy or bloated.

Based on their experiences, we have compiled a number of lessons for leaders seeking to align their school systems to the goals of deeper learning:

COLLECT AND USE THE RIGHT DATA

To help them answer questions that are fundamental to system-wide improvement, district leaders must have access to the right data. For example, the right data answers such key questions as: What is the current capacity of teachers in each school relative to the district's instructional framework, the district's strategic plan, and the individual school's improvement plan? And do our efforts reflect the latest knowledge about how best to support teachers in reaching such goals?

In one district, central office leaders came to realize that to answer such questions, they would have to build an entirely new data dashboard. While their existing system provided extensive information about achievement test performance, grades, attendance, and teacher evaluation results, it did little to help them understand the *quality* of teachers' classroom instruction. For instance, teachers in several schools had received particularly low marks on the teacher evaluation related to using explicit objectives in their teaching. However, when C&I staff more closely examined what teachers were doing in their classrooms, they observed that those teachers actually had different levels of capacity related to this evaluation standard.

Nor could the system help them answer questions important to their strategic decision making, such as: Which of our students are chronically low-performing across grades and subject areas? Which teachers and principals, if any, have these students had in common? What other features of these schools might help explain such results?

Having built a new data system, leaders in this district now report to us that they are able to make grounded hypotheses about the root causes of disappointing student outcomes, and they can identify key points of leverage that are likely to improve performance. Having access to better data means they are no longer tempted to blanket their schools with professional development offerings and staffing changes, in the hope that some of them might pay off. Instead, they are now careful to target their efforts on the areas of greatest need.

Another district that we work with is now developing a strategy to improve the quality of the data it collects through its annual school improvement planning (SIP) process. The SIP previously required schools to report their goals and strategies for student learning for the coming year. But knowing what schools *wanted* to achieve did nothing to help district staff figure out which supports

might enable them to *realize* such results. Instead, the new, redesigned SIP will lead schools through a process of assessing their current capacity relative to their performance targets, which will provide better information about the kinds of district support they will need.

ADDRESS TEACHING AND LEARNING ACROSS THE SUBJECT AREAS

Second, as C&I staff make decisions about which sorts of professional development to provide to schools, they should not confine themselves to the traditional subject-matter silos. Rather, they should consider working collaboratively across professional development areas, guided by relevant data about teaching and leadership quality. For instance, in one district, C&I staff from several subject areas meet regularly to discuss their data about teacher capacity in individual schools. Only then, and in collaboration with their principal supervisors and school principals, do they choose the specific professional development approaches that are most likely to have the greatest impact on teaching.

In other words, leaders of these units do not assume that their own subject areas should be the focus of professional development services. Nor do they restrict their choices to the services they themselves can provide. Rather, they start out by considering the schools' overall needs and priorities. Then, after careful analysis with central office and school staff, they choose strategies for leveraging professional growth in each school.

BUILD BRIDGES WITHIN THE CENTRAL OFFICE— ESPECIALLY BETWEEN CURRICULUM AND INSTRUCTION AND HUMAN RESOURCES

In districts aligning to performance, C&I and HR leaders also collaborate to ensure that professional development aligns with the systems guiding the placement of teacher and principal candidates.

» **Having access to better data means they are no longer tempted to blanket their schools with professional development offerings and staffing changes, in the hope that some of them might pay off. Instead, they are now careful to target their efforts on the areas of greatest need.**

For example, one of our partner districts is building a new system of coordination between C&I and HR in which school-specific decisions about professional development happen in tandem with analyses of the fit between particular teachers and their placements. Beginning with the initial screening of job candidates, HR staff collect information related to their teacher education or leadership programs, prior professional experiences, and their scores on performance-based tasks—such as teaching mock or actual lessons—integrated into the hiring process. (Researchers and district leaders have been able to use such information to identify, for example, teacher education programs whose graduates tend to do especially well in a particular district, school, grade-level or subject area; Odden 2011.) When questions arise as to the quality of individual teachers or principals' work, HR and C&I staff meet together and review that data, using it to inform their decisions as to whether it would be preferable to move those people to new positions or to keep them in place while providing them with professional development services.

Leaders in C&I and HR units can also eliminate or streamline existing tasks to maximize the time their staff spend on work that helps improve teaching and learning. For example, by automating various routine processes related to professional leave, payroll, and the verification of continuing education credits, one district was able to redirect staff lines to an enhanced recruitment team, which reviews school-level data to help them identify and recruit teaching candidates who seem to fit particularly well with the given position and the local workplace dynamics.

SEARCH OUT ADDITIONAL OPPORTUNITIES FOR ALIGNMENT

We continue to find that while principal supervision, C&I, and HR play lead roles in district efforts to improve teaching and learning, other parts of the central office also have important parts to play.

For example, in one study, we observed that administrators and HR staff made a strategic decision to reduce the number of teachers in a given school, but implementation stalled because information technology, payroll, and other systems could not easily process the decision (Honig 2009)—or, to put it another way, those other systems could not easily align to improvements made by HR. In another instance, C&I staff found that professional development events were more successful when staff from the facilities and payroll departments were included in the planning (Honig et al. 2010).

In another positive example of alignment between non-instructional units and the improvement of teaching and learning, a district's chief of operations decided to engage her bus drivers in a series of conversations about the role they could play in enhancing the quality of student learning and reinforcing the school culture, such as its rules of appropriate conduct. For instance, they could greet students personally every morning, communicate with their adult caregivers at bus stops, and relay any important information to school staff (which can be particularly valuable when those caregivers are unable or unwilling to communicate with school staff directly).

In another district, following complaints by school principals about the lack of responsiveness of Buildings & Grounds staff, the chief of operations partnered with union leaders to find ways to improve performance. They discovered that principals wasted numerous hours following up on outstanding work orders to Buildings & Grounds, but they also found that staff had not been proactively identifying and addressing issues that could have maximized the use of instructional space. Union leaders believed the staff wanted to improve their performance but had never been invited or supported to do so. In response, the central office established a relationship with a local community college to help raise staff skill levels, and staff built a department performance scorecard to track metrics such as how much time they saved principals when they worked in more responsive and proactive ways. Another district developed



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a similar scorecard that translated the number of hours of principals' time saved into dollar figures, showing how much money they were freeing up for the school (Honig et al. 2010).

Given our limited experiences working with units other than principal supervision, C&I, and HR, and given the

limited research in this area, we can only touch briefly on the importance of performance alignment throughout the rest of the central office. However, we do find that when district leaders neglect to consider all parts of the central office, they ultimately face a host of predictable problems, including competition among units, lack of coordination, and use of the wrong data to inform change.



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CONCLUSION

In this paper, we have argued that strong, coordinated support from the district central office is essential to realizing deeper learning for all schools and all children. No matter how committed individual district leaders may be to school improvement, their plans will likely be stymied unless they find ways to bring every part of the system into alignment with the goals of excellent teaching and learning for all students.

As we have written elsewhere, the changes we describe here are a far cry from administration-as-usual. District leaders who are serious about this work do not simply tinker with their central offices but transform them into teaching-and-learning support systems (Honig 2013). Such efforts go well beyond the shifting of boxes and lines on formal organizational charts and reach into the daily work of each and every central office staff person to engage them fully in redesigning their roles and participating in multiple stages of reform.

Our main recommendation to all district leaders—and policymakers and foundation leaders as well—is to heed these lessons and support major improvements in central offices focused on performance alignment. Further, because aligning for performance relies so heavily on re-making the day-to-day work of the central office, district leaders would do well to invest in building the capacity of their own staff to help lead the effort. Our partner districts have done so not only by creating professional learning opportunities for existing staff but also by bringing in new staff whose expertise (in leadership, instruction, finance, and other areas) does not necessarily fit the traditional central office mold.

Going forward, how can district leaders, researchers, policymakers, and others ensure the continued development of central office staff capacity consistent with performance alignment?

One place to start is the creation of new data systems to capture and display information that goes well beyond test scores, and which allow staff in all parts of the central office to better understand the quality of teaching, learning, and principal leadership in their schools, and to see how they might align their work to support improvement. District leaders build such systems not by relying on whatever data sources happen to be available but, rather, by taking proactive steps to collect data that can help them answer their most pressing questions about adult capacity and performance.

Another place to begin may be to enlist researchers to help districts strengthen their understanding—and in the process to strengthen the larger knowledge base—of the ways in which central office work practices matter to student outcomes.

Finally, and as we noted earlier, care should be taken to create policy frameworks that support these efforts. Historically, state and federal governments, as well as foundations, have contributed to the lack of strategic coordination within central offices by, for example, distributing funding and designing accountability systems in ways that reinforce organizational silos, typically by privileging test score results as performance targets and doing little to help districts build data systems that can drive performance improvements. Going forward, then, the question is: How can policymakers and foundations work together to support districts in ways that enable the creation of integrated district systems in support of deeper learning?

REFERENCES

- Berends, M., Bodilly, S.J., & Kirby, S.M. 2002. "The Future of Whole School Designs: Conclusions, Observations, and Policy Implications." In M. Berends, S.J. Bodilly, & S.M. Kirby, eds. *Facing the Challenges of Whole School Reform: New American Schools After A Decade*. Santa Monica, CA: RAND Education.
- Busch, M., Castillo-Page, L., Duong, N., Ellery, S., Hall, C., Martinez, B., McMahon, P., Means, B., Mitchell, K., Monroe, J., Murphy, R., Phillips, M., Rhodes, D., Shear, L., Smerdon, B., Song, M., Yamaguchi, R., & Zaidi, A. 2004. *The National School District and Network Grants Program: Year 2 Evaluation Report*. Washington, DC: The American Institutes for Research.
- Center on Education Policy. 2004. *From the Capital to the Classroom: Year 2 of the No Child Left Behind Act*. Washington, DC: Author.
- Curtis, R. & Wurtzel, J. 2010. *Teaching Talent: A Visionary Framework for Human Capital in Education*. Cambridge, MA: Harvard Education Press.
- Education Commission of the States (ECS). 2015. "Education Issues." Available at: <http://www.ecs.org/html/IssueCollapse.asp>
- Franke, M.L., Kazemi, E., & Battey, D. 2007. "Understanding Teaching and Classroom Practice in Mathematics." In F.K. Lester, ed. *Second Handbook of Research On Mathematics Teaching and Learning*. Greenwich, CT: Information Age Publishers.
- Fuhrman, S. 1999. *The New Accountability*. Philadelphia, PA: Consortium for Policy Research in Education.
- Fuhrman, S. & Elmore, R. 1990. "Understanding Local Control in the Wake of State Education Reform." *Educational Evaluation and Policy Analysis*. Vol. 12, No. 1.
- Goldhaber, D., Brewer, D., & Anderson, D. 1999. "A Three-Way Error Components Analysis of Educational Productivity." *Education Economics*. Vol. 7, No. 3.
- Grissom, J., Loeb, S., & Master, B. 2013. "Effective Instructional Time Use for School Leaders: Longitudinal Evidence from Observations of Principals." *Educational Researcher*. Vol. 42, No. 8.
- Hanushek, E.A. 1992. "The Trade-Off between Child Quantity and Quality." *Journal of Political Economy*. Vol. 100, No. 1.
- Hamilton, L., Stecher, B., Marsh, J., McCombs, J., Robyn, A., Russel, J., Naftel, S., & Barney, H. 2007. *Standards-Based Accountability under No Child Left Behind: Experiences of Teachers and Administrators in Three States*. Santa Monica, CA: Rand Education.
- Hewlett Foundation. 2012. *Deeper Learning Strategic Plan Summary*. Menlo Park, CA: Author.
- Honig, M.I. 2003. "Building Policy from Practice: District Central Office Administrators' Roles and Capacity for Implementing Collaborative Education Policy." *Educational Administration Quarterly*. Vol. 39, No. 3.
- Honig, M.I. 2012. "District Central Office Leadership as Teaching: How Central Office Administrators Support Principals' Development as Instructional Leaders." *Educational Administration Quarterly*. Vol. 48, No. 4.
- Honig, M.I. 2013. *From Tinkering to Transformation: Strengthening School District Central Office Performance*. Washington, DC: American Enterprise Institute.
- Honig, M.I., Copland, M., Rainey, L., Lorton, J., & Newton, M. 2010. *Central Office Transformation for District-Wide Teaching and Learning Improvement*. Seattle, WA: University of Washington, Center for the Study of Teaching and Policy.
- Honig, M.I. & Rainey, L.R. 2014. "Central Office Leadership in Principal Professional Learning Communities: The Practice Beneath the Policy." *Teachers College Record*. Vol. 116, No. 4.
- Honig, M.I., Venkateswaran, N., McNeill, P., & Myers Twitchell, J. Under review. "Research Use as Learning: The Case of Fundamental Change in School District Central Offices." *American Educational Research Journal*.
- Hubbard, L., Mehan, H., & Stein, M.K. 2006. *Reform as Learning: When School Reform Collides with School Culture and Community Politics*. New York, NY: Routledge.

- Huberman, M., Bitter, C., Anthony, J., & O'Day, J. 2014. *The Shape of Deeper Learning: Strategies, Structures, and Cultures in Deeper Learning Network High Schools*. Washington, DC: American Institutes for Research.
- Kirst, M. 1990. *Accountability: Implications for State and Local Policymakers*. Washington, DC: Office of Educational Research and Improvement, U.S. Department of Education
- Kober, N., Jennings, J., & Peltason, J. 2010. *Better Federal Policies Leading to Better Schools*. Washington, DC: Center on Education Policy.
- Knapp, M., Copland, M., Honig, M.I., Plecki, M., & Portin, B. 2010. *Learning-Focused Leadership and Leadership Support: Meaning and Practice in Urban Systems*. Seattle, WA: University of Washington, Center for the Study of Teaching and Policy.
- Malen, B., Ogawa, R.T., & Kranz, J. 1990. "What Do we Know about School-Based Management? A Case Study of the Literature—A Call for Research." In W.H. Clune & J.F. White, eds. *Choice and Control in American Schools*. Philadelphia, PA: Falmer.
- Marsh, J. 2000. *Connecting Districts to the Policy Dialogue: A Review of Literature on the Relationship of Districts with States, Schools, and Communities*. Seattle, WA: University of Washington, Center for the Study of Teaching and Policy.
- McLaughlin, M. & Talbert, J. 2003. *Reforming Districts: How Districts Support School Reform*. Seattle, WA: University of Washington, Center for the Study of Teaching and Policy.
- Mirel, J. 1990. "Progressive School Reform in Comparative Perspective." In D. Plank & R. Ginsberg, eds. *Southern Cities, Southern Schools: Public Education in the Urban South*. New York, NY: Greenwood Press.
- National Governors Association, Council of Chief State School Officers, & Achieve, Inc. 2008. *Benchmarking for Success: Ensuring U.S. Students Receive a World-Class Education*. Washington, DC: National Governors Association.
- National Research Council. 2012. *Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century*. Washington, DC: National Academies Press.
- Odden, A. 2011. *Strategic Management of Human Capital: Improving Instructional Practice and Student Learning in Schools*. New York, NY: Routledge.
- Plecki, M., Knapp, M., Castaneda, T., Halverson, T., LaSota, R., & Lochmiller, C. 2009. *How Leaders Invest Staffing Resources for Learning Improvement*. Seattle, WA: University of Washington, Center for the Study of Teaching and Policy.
- Portin, B., Knapp, M., Dareff, S., Feldman, S., Russell, F., Samuelson, C., & Ling, T. 2009. *Leading for Learning Improvement in Urban Schools*. Seattle, WA: University of Washington, Center for the Study of Teaching and Policy.
- Portin, B., Schneider, P., DeArmond, M., & Gundlach, L. 2003. *Making Sense of Leading Schools: A Study of the School Principalship*. Seattle, WA: University of Washington, Center on Reinventing Public Education.
- Purkey, S.C. & Smith, M.S. 1985. "School Reform: The District Policy Implications of the Effective Schools Literature." *The Elementary School Journal*. Vol. 85, No. 3.
- Rainey, L. & Honig, M.I. Forthcoming. *From Procedures to Partnership: Redesigning Principal Supervision to Help Principals Lead for High-Quality Teaching and Learning*. Seattle, WA: District Leadership Design Lab, The Center for Educational Leadership, University of Washington.
- Rivkin, S.G., Hanushek, E.A., & Kain, J.F. 2005. "Teachers, Schools, and Academic Achievement." *Econometrica*. Vol. 73, No. 2.
- Rockoff, J. 2004. "The Impact of Individual Teachers on Student Achievement: Evidence from Panel Data." *The American Economic Review*. Vol. 94, No. 2.
- Robinson, V.M. J., Lloyd, C.A., & Rowe, K.J. 2008. "The Impact of Leadership on Student Outcomes: An Analysis of the Differential Effects of Leadership Types." *Educational Administration Quarterly*. Vol. 44, No. 5.
- Sebastian, J. & Allensworth, E. 2012. "The Influence of Principal Leadership on Classroom Instruction and Student Learning: A Study of Mediated Pathways to Learning." *Educational Administration Quarterly*. Vol. 48, No. 4.
- Spillane, J.P. 1998. "State Policy and the Non-Monolithic Nature of the Local School District: Organizational and Professional Considerations." *American Educational Research Journal*. Vol. 35, No. 1.
- Spillane, J.P. 2000. "Cognition and Policy Implementation: District Policymakers and the Reform of Mathematics Education." *Cognition and Instruction*. Vol. 18, No. 2.

Steffes, T. 2008. "Solving the 'Rural School Problem': New State Aid, Standards, and Supervision of Local Schools, 1900-1933." *History of Education Quarterly*. Vol. 48, No. 2.

Supovitz, J., Sirinides, P., & May, H. 2011. "How Principals and Peers Influence Teaching and Learning." *Educational Administration Quarterly*. Vol. 46, No. 1.

Turnbull, B., Riley, D., & MacFarlane, J. 2015. *Districts Taking Charge of the Principal Pipeline*. Washington, DC: Policy Studies Associates, Inc.

Venkateswaran, N. 2015. *When Principals Lead for Improved Teaching: The Importance of Principal-Teacher Interactions*. Seattle, WA: University of Washington.

Windschitl, M., Thompson, J., Braaten, M., & Stroupe, D. 2012. "The Beginner's Repertoire: Proposing a Core Set of Instructional Practices for Teachers of Science." *Science Education*. Vol. 96, No. 5.

Table 1. Data Sources

Data Source	Study Title (Short)	Sites	Activities	Dates
Research Sites	Central Office Transformation*	<ul style="list-style-type: none"> > 3 urban districts 	<ul style="list-style-type: none"> > 282 interviews > 265 observation hours > 252 documents 	August 2007- July 2008
	Research Use as Learning**	<ul style="list-style-type: none"> > 1 mid-sized urban district > 2 mid-sized suburban districts > 3 small rural districts 	<ul style="list-style-type: none"> > 124 interviews > 499 observation hours > 300 documents 	January 2011- June 2012
Partner Districts	NA***	<ul style="list-style-type: none"> > 17 mid-sized and large, urban and suburban districts 	<ul style="list-style-type: none"> > Engagement in learning sessions around latest knowledge about central office performance improvements > Principal and principal supervisor surveys > Interviews about reform implementation > Participation in design-based research methods as part of reforms focused on principal supervision and C&I and HR redesign 	September 2011- present

* Publications from this research study include Honig et al. 2010; Honig 2012, 2013, 2014; Honig & Rainey 2014.

** Publications from this research study include Honig et al. forthcoming.

*** Publications from ongoing partnerships include Rainey & Honig forthcoming. See also www.dl2uw.org.



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