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Abstract

Scaling up innovation in the instructional core remains a vexing proposition. Such disruptive innovations require teachers to engage in performance adaptation. Schools vary in their capacity to support changes in teachers' day-today work. By comparing distributed instructional leadership practices of "odds-beating" schools with those at "typically performing schools," this study identified four qualities of distributed instructional leadership that drive teacher performance adaptation: collective goal setting, instructional feedback, collective guided learning, and trusting relationships. These findings reiterate the need for policy to go beyond standards and accountability mandates to focus on the right drivers of change: capacity building, and opportunities for collaboration in tandem with pedagogical improvement.

Across the globe, top-down and horizontal educational change approaches have sought to increase the effectiveness of the interactions of students and teachers in the presence of content to support higher student achievement (Elmore, 2004; Rincón-Gallardo & Fleisch, 2016). A recent example from the United States merits investigation, the federal Race to the Top (RTTT) grant program developed under the Obama administration. RTTT sought to impact the instructional core by influencing state-level education policy using a combination of standards-based and accountability-based reforms (Coburn, Hill, & Spillane, 2016).

As such, RTTT constitutes a disruptive policy innovation (Christensen, Horn, & Johnson, 2011). The interdisciplinary research on organizational change frames the ability to respond to outside pressure as absorptive capacity (Zahra & George, 2002; Zuckerman, Wilcox, Durand, & Schiller, under review). This capacity depends on the performance adaptation of individuals, or their ability to change their day-to-day work in response to novel and complex change (Baard, Rench, & Kozlowski, 2013). For domain-specific changes, such as instructional change, performance adaptation requires a goal orientation, opportunities for guided learning, and adaptive feedback (Baard et al., 2013). These dimensions map onto concepts of distributed instructional leadership, particularly the idea of boundary-crossing leaders who engage in tasks with teachers to develop distributed cognition about teaching and learning (Halverson & Clifford, 2013; Spillane, Halverson, & Diamond, 2001).

This study is derived from a larger multiple case study of RTTT implementation in 18 elementary and middle schools. Here, we examine the nine middle schools, as the increased specialization of secondary education allows us to focus more clearly on domain-specific performance adaptation. The structure of this analysis allowed us to compare the implementation of the disruptive RTTT policies in two groups of middle schools: odds-beating schools, where student assessment scores were above predictions based on demographic characteristics, and typical schools, where students scored as predicted. This study is guided by the research question: What qualities of distributed instructional leadership support teacher performance adaptation as disruptive policy innovations are implemented? The comparisons of odds-beating and typically performing schools provides an opportunity to

identify how qualities of distributed instructional leadership differ in contexts characterized by different performance outcomes during implementation of disruptive policy innovations.

We identified four qualities of distributed instructional leadership that appeared to support teacher performance adaptation: (1) collective goal setting; (2) instructional feedback; (3) collective, guided learning in professional learning communities; and (4) trusting relationships. A variety of formal and informal leaders used these distributed instructional leadership routines in their direct work with teachers for the express purposes of improving instruction (Spillane, Halverson, & Diamond, 2004). These efforts were facilitated by tasks and tools of distributed instructional leadership (Coldren & Spillane, 2007; Spillane et al., 2004), referred to here as routines, and were supported by trusting relationships. Although the roles, routines, and relationships of distributed instructional leadership outlined above existed on a continuum among both the odds-beating and typical schools, we identified stronger evidence of these qualities at the odds-beating schools.

Innovation Implementation and Adaptation Demands of RTTT

As New York State (NY) received funds to implement simultaneously three educational policy changes under the federal Race to the Top completion, it served as an appropriate context for this study. These policy innovations included (1) the Common Core State Standards; (2) a new teacher evaluation system (referred to as the Annual Professional Performance Review or APPR); and (3) Data-driven instruction (DDI) (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010; New York State Education Department, 2016). These policy innovations combined standards-based and accountability-based reforms to impact the "what" and "how" of teaching and learning in the classroom. However, they provided little guidance on how adaptations to the standards should take place (Coburn et al., 2016; Elmore, 2004).

For such top-down policy innovations to affect the instructional core, teachers must learn to think and act in new ways (Coburn, 2003). As Elmore (2016) notes, "'Implementation' is something you

do when you already know what to do; 'learning' is something you do when you don't yet know what to do" (p. 531). Implementation of policy innovations such as the CCSS can be viewed in the same way. It requires teachers to learn about the implications of standards changes for curriculum and instructional practices (Spillane, 2004; Spillane, Reiser, & Reimer, 2002; Stosich, 2016) and then adapt their performances.

The Common Core Standards

The Common Core State Standards required teachers to engage in different curricular, instructional, and assessment practices (McLaughlin & Overturf, 2012). Porter and colleague's (2011) analysis of state standards revealed that only one-third of the previous NY (ELA) standards in Grades 6–8 align with the CCSS, resulting in the need for significant changes on the part of teachers. These changes included increased focus on nonfiction texts and complex, grade-level texts, as well as close reading using interpretation, argumentation, and literary analysis. These foci are aimed at preparing students for rhetoric, or the art of persuasive writing, in high school and college (McLaughlin & Overturf, 2012).

   These changes may go against entrenched practices. For example, the focus on grade-level texts rather than "instructional" level texts goes against "dogmatic" approaches to literacy instruction (Shanahan, 2013, p. 6) and requires scaffolding and motivational strategies often lacking in teachers' repertoires of practice. Similarly, the emphasis on New Criticism at the college level has influenced certain CCSS advocates to push for reading strategies that remain within the four corners of the text (Hodge & Benko, 2014; Shanahan, 2013). Such approaches conflict with existing literacy practices aimed at creating and activating prior knowledge for comprehension (Shanahan, 2013). The New York State Education Department described these and other changes as "instructional shifts" necessary for teachers to help students meet the new standards (New York State Education Department, 2016; see Appendix A).

   The Common Core mathematics standards also require adjustments in the emphasis of curriculum and instruction. Schmidt and Houang

(2012) identify New York as being in the middle range of similarity between the previous state standards and the math CCSS. While Porter and colleagues (2011) did not include the NY math standards in their analysis, they identified that across their sample, the average proportion of alignment of the CCSS and state standards in Grades K–12 ranged from approximately a fifth to just over one third. They identified a shift from memorization and routine procedures in the state standards to the demonstration of knowledge and ability to solve nonroutine problems in the CCSS (Porter et al., 2011). They also identified the CCSS as focusing greater attention on number sense, operations, measurement, basic algebra, and geometry. The CCSS also spread content across grades to scaffold skills, as demonstrated by Wu's (2011) analysis of the math standards. This requires teachers to integrate new material into their curriculum. In addition to mastering new content, teachers must have a greater depth of knowledge of mathematics in order to respond to the shifts in focus from memorization to problem solving in the CCSS (Wu, 2011).

While these authors highlight that teachers must "shift" their curriculum, instruction, and assessment practices in response to the CCSS, the degree of change depended on the previous state standards, local district instructional systems, and teachers' capacity. Schmidt and Houang (2012) have emphasized the attendant variability: "For some states, the road to travel is shorter, but for others, it is very long" (p. 306). Similarly, inter-school variation (Cohen & Ball, 1999; Honig, 2006) creates challenges for implementation practice and implementation research.

Literature Review

Given the need for teachers to adapt to curriculum, instructional, and assessment changes under RTTT, we suggest the concept of domain-specific performance adaptation as an analytic lens. This lens focuses attention on how policy moves from the state to teachers in the classroom. As part of the policy-implementation journey, school and district leaders play important roles in translating policies and building teacher capacity for change (Coburn, 2001, 2003; Coburn & Russell, 2008; Coburn & Woulfin, 2012; Neumerski, 2013). Therefore,

we utilize a conceptual framework that includes policy implementation, distributed instructional leadership, and performance adaptation to examine how the two groups of schools in this study responded to the disruptive RTTT policies.

Challenges of policy implementation in the instructional core

Large-scale educational reform efforts, like RTTT, are increasingly targeting the instructional core to improve educational outcomes (Rincón-Gallardo & Fleisch, 2016). Such policies seek to address the "loose coupling" in schools (Weick, 1976, p. 1) by increasing the consistency of curriculum and instruction students receive from classroom to classroom and school to school. Previous reform efforts often focused on the way adults work in schools, such as teacher teaming, but those that have stuck tend to be those most removed from the instructional core (Elmore, 2004). Therefore, instructional practices remain untouched, leading to poor results, and suggesting the need to identify the right drivers of whole-system educational change.

The "right" policy drivers

To create change in teaching and learning, Fullan (2011) identified four policy strategies he termed "the right drivers" that have a higher likelihood of achieving better student outcomes. Fullan (2011) identified these policy drivers from international analyses of effective school systems (e.g., Mourshed, Chijioke, & Barber, 2010; OECD, 2011) and his own analyses of whole-systems change efforts in Australia and the U. S. The right drivers for change are capacity-building, group work, pedagogy, and what he calls "systemness." In their attention to increasing individual competency and organizational capacity, as well as systems-level change, these drivers transcend traditional policy instruments such as mandates and inducements (McDonnell & Elmore, 1987).

Fullan and Quinn (2016) describes capacity building as including the skills, knowledge, and competencies in both pedagogy and change leadership to meet specified goals. Group work entails collaboration and the sharing of pedagogical expertise that translates teachers' work in classrooms (Fullan & Quinn, 2016). System-ness refers to

connections between disparate parts of the educational system ecologies, including qualities of coherence within multiple levels of the system (e.g., state-level policy, districts, and schools) (Fullan, 2011; Fullan & Quinn, 2016).

Clearly, RTTT attempted to promote pedagogical change; however, these policies paid limited attention to capacity building, group work, and system-ness as drivers for change. While the New York State Education Department held turnkey workshops to help school leaders and teachers understand the content of the new standards, the effectiveness of this approach remains to be seen (Schiller et al., 2017). Capacity building and creating opportunities for group work were left to district and schools, which placed responsibility on district and school leaders for innovation implementation. The delegation of responsibility to local leaders created its own set of challenges, as variation in distributed instructional-leadership infrastructure and capacity may contribute to the uneven implementation of the pedagogical changes of CCSS.

Distributed instructional leadership

Distributed instructional leadership requires leaders to develop strategies that impact what happens in the classroom to scale up innovations (Elmore, 2004; Halverson & Clifford, 2013). This work advances as the tighter coupling of leadership and instructional practices occurs, and especially as leaders stretch their practices into the classroom (Spillane & Burch, 2006; Spillane et al., 2004; Weick, 1976). Stretching of leadership across instructional arenas provides opportunities for principals and others to develop the instructional capacity of teachers (Harris, 2008; Klar, 2012; Leithwood, Seashore Louis, Anderson, & Wahlstrom, 2004). This is done, in part, by building individual competency through the establishment of trust, gained and maintained through timely communications, and buttressed by provision of opportunities to learn (Lawson et al., 2017; Youngs & King, 2002). Such capacity building includes teacher learning about what the new standards mean for classroom practices (Spillane, 2004; Spillane et al., 2002; Stosich, 2016). Teacher collaboration provides a forum for social learning to support individual and collective capacity (Fullan & Quinn, 2016; Leithwood & Azah, 2017).

Thus, distributed instructional leadership serves as a facilitator for instructional innovation implementation and has been identified as a potential lever for school change and school improvement (e.g., Camburn, Rowan, & Taylor, 2003; Day, Jacobson, & Johansson, 2011; Leithwood, 2016). Distributed leadership draws on the concept of distributed cognition to provide a framework for investigating the tasks and actions of school leadership as it occurs in context between and among a variety of actors (Spillane et al., 2004).

Definitions of distributed leadership highlight the stretching, sharing, and spreading of leadership tasks across multiple formal and informal roles throughout the school (Klar, Huggins, Hammonds, & Buskey, 2016; Smylie, Mayrowetz, Murphy, & Louis, 2007; Spillane et al., 2004). Distributed leadership is social and relational, occurring within the interactions of individuals (Spillane et al., 2004). These conceptualizations of distributed instructional leadership highlight the importance of three aspects: roles, routines, and relationships, described in the next sections.

Instructional leadership roles

District and school leaders, along with instructional coaches and teacher leaders, play key roles in translating policy changes and supporting instructional change (Coburn, 2001, 2003; Coburn & Russell, 2008; Neumerski, 2013; Coburn & Woulfin, 2012). Additionally, distributed instructional leadership emphasizes the sharing of leadership activities that specifically affect the learning environment for teachers and students among formal and informal roles (Camburn et al., 2003; Halverson & Clifford, 2013). Instructional leadership is the "intentional effort at all levels of an educational system to guide, direct, or support teachers as they seek to increase their repertoire of skills, gain professional knowledge, and ultimately improve their students' success" (Knapp, Copland, Honig, Plecki, & Portin, 2010). In order to affect the learning environment, leaders need to serve as boundary spanners. They do so by crossing between the leadership plane and the instructional plane to impact the instructional core (Coldren & Spillane, 2007; Halverson & Clifford, 2013; Wenger, 1998). These boundary-spanning leadership roles are spread across a variety of actors, including principals, instructional coaches, and department chairs,

along with informal teacher leaders (Neumerski, 2013; Spillane & Diamond, 2007; Spillane, Diamond, & Jita, 2003). Distributed leadership practices redesign the work roles, particularly for teachers, who must take on additional responsibilities (Louis, Mayrowetz, Smiley, & Murphy, 2009).

Instructional leadership routines

Routines refer to patterns in which actors engage with tools and tasks on a recurrent basis (Coldren & Spillane, 2007). When considering such routines, distributed instructional leadership focuses on leadership tasks, such the micro-tasks of day-to-day school operations and more complex macrotasks like developing a vision and mission (Spillane et al., 2004). These tasks often revolve around particular tools that structure or constrain leadership activities, such as teacher observation protocols (Spillane et al., 2004).

Over time, such routines become part of the organizational culture (Halverson & Clifford, 2013). The routines are the situations of practice (Clifford, 2009; Halverson, 2003) and provide opportunities for distributed cognition to take place between actors in various roles (Halverson & Clifford, 2013). To support change, leaders use new tools and tasks to provide structures for new routines to develop. In order to shift routines, existing tasks, tools, and routines need to be examined, and new patterns developed. (Halverson& Clifford, 2013). The development of such structures and routines can contribute to the increased distribution of instructional leadership (Harris, 2010).

Distributed leadership relationships

Finally, relationships play a key role in distributed instructional leadership due to the relational nature of distributed cognition (Spillane et al., 2004). The quality of relationships between leaders and followers impacts school improvement efforts. For example, relational trust at the school level, supported by principals, has been identified as a key factor in improvement (Bryk, Sebring, Allensworth, Luppescu, & Easton, 2010). The development of relational trust is embedded in the organization of the work of adults within a school, as well as in the social interactions between individuals. Relational trust serves both as a

social glue and a lubricant for communication and risk-taking (Bryk & Schneider, 2002). Relational trust and positive relationships are supported by routines for two-way communication and support social exchanges within schools and between schools and districts (DuFour & Fullan, 2013; Lawson et al., 2017; Spillane & Hopkins, 2013).

Trusting relationships shape the opportunities for distributed leadership across individuals (Louis et al., 2009; Smylie et al., 2007). The interdependency of trust and distribution of leadership create virtuous or vicious cycles (Louis, 2007; Smylie et al., 2007). Leaders can proactively set the stage for the development of trust for distributed leadership by admitting mistakes, active listening, and providing staff members with affirmations (Browning, 2014; Smylie et al., 2007; Tschannen-Moran & Hoy, 2000). Northfield (2014) suggests the need for character, integrity, and care for others in the cumulative process of building trust.

Performance adaptation

The RTTT policy agenda created new expectations for student learning, which in turn required teachers to engage in new classroom behaviors. In order to understand how distributed instructional leadership can support changes in teachers' day-to-day work in the absence of state-level policy drivers for capacity building and collaboration, we turn to the organizational-change literature. This multidisciplinary literature identifies the concept of performance adaptation to describe the "cognitive, affective, motivational, and behavioral modifications made in response to a new or changing environment, or situational demands" (Baard et al., 2013; p. 3). These modifications can be conceptualized in two ways: (1) domain-general performance adaptation, or traits and capacities that can be transferred among settings; or (2) domain-specific ways that require a specific skill and specific body of knowledge (Baard et al., 2013). Based on this conceptualization, we identify new curriculum standards and instructional practices as a specific body of knowledge that teachers must master in order to reach student-outcome goals and teacher-evaluation demands.

Underlying the domain-specific aspect of performance adaptation is the assumption that skills and knowledge can be gained through training and other experiences (Baard et al., 2013). From a review of the

literature on cognitive, affective, motivational and behavior changes in the workplace, Baard and colleagues (2013) identified four elements that contribute to individual learning for domain-specific performance adaptation. These elements are (1) a goal orientation, including focusing on mastering goals through individual learning; (2) learning through guided exploration and connecting multiple topics for deeper understanding; (3) the use of adaptive feedback drawing on previous performance; (4) and the framing of errors as a means to learn.

Each of these elements suggests the need for distributed instructional leadership to support domain-specific performance adaptation. For example, the need for a goal orientation suggests routines to develop shared understanding of goals. Guided learning suggests the need for instructional leaders in a variety of roles to work directly with teachers around policy changes to develop understandings of policy and what they mean for instructional practice (Coburn, 2004; Coburn & Woulfin, 2012; Stosich, 2016). Adaptive feedback suggests the need for classroom observations to drive professional learning. The need to reframe errors as normative suggests the need for trusting relationships in which teachers feel safe to take risks.

The Study

This study is part of a larger, mixed-method, multiple case study of 18 elementary and middle schools conducted in New York State. The larger study was designed to identify processes and practices in schools whose students exceeded (i.e., odds-beating) or met (typically performing) performance expectations for students on the first ELA and Math Common Core assessments given in the 2012–2013 school year and had a consistent trend of such performance prior to the implementation of RTTT. One major goal of the study was to identify promising practices of schools with better-than-average student performance both before and after disruptive policy innovations aimed at the instructional core.

This embedded study focuses on the nine middle schools because content-area specialization of secondary education provides insight into the on domain–specific performance adaptation strategies in implementing the CCSS in the curriculum and their associated

instructional shifts more so than at the elementary level (Schmidt & Houang, 2012; Wallender, 2014). Specifically, this study was designed to investigate differences between odds-beating and typically performing middle schools with regard to distributed instructional leadership roles, routines, and relationships aligned with the learning-process conception of performance adaptation (Baard et al., 2013).

Sample selection

The sampling for the larger study proceeded in several stages. First, we conducted six regressions using all of the middle schools in New York State. These regressions included one each for ELA and math assessment across Grades 6, 7, and 8 (Levine, Stephan, & Szabat, 2013). Second, one-sample t tests were used to predict the score as the hypothesized value for each of the six comparisons (Levine et al., 2013). These analyses took into consideration the proportion of economically disadvantaged students and the proportion of limited English-proficient (LEP) students at each grade level, as these two demographic variables are highly correlated to achievement outcomes (Goldsmith, 2011).

These analyses resulted in a pool of 195 middle schools that either met the criteria as odds-beating (assessment scores at least one standard deviation above expected on multiple assessments) or typically performing (scored as expected on multiple assessments) based on their student demographics.[1] While many options are available when designing multiple case studies, we chose "a literal replication" (Yin, 2013, p. 57) design with an emphasis on odds-beating schools. Therefore, we sampled twice as many odds-beating schools (n 6) as typically performing schools (n = 3).

In selecting these nine schools, we considered diversity in the types of students served (e.g., ethnic/racial diversity and rates of economically disadvantaged students and LEP students), school and district fiscal resources (e.g., per-pupil expenditures, combined wealth ratio, percentage of expenditures on instruction), and region of the state

1. Lower-performing schools were not sampled as they were undergoing state reviews that would have made participation in this research burdensome and they were not necessary to meet the recommended procedure for replication in this type of research design.

Table 1. Middle school sample demographics and performance on 2013 New York State CCLS assessments.

	% Economically Disadvantaged Students	% White Students	Total Enrollment	Per-Pupil Spending	Average z Residual Range
Odds-Beating Middle Schools					
Hutch Hill	17–40%	> 90%	> 770	<$18K	2.00<
Julesberg	17–40%	< 75%	> 770	$18-22K	1.50–1.99
Laribee	< 17%	75–90%	770–450	<$18K	< 1.00
Roaring Gap	17–40%	< 75%	770–450	$18-22K	2.00 <
Ruby	> 40%	> 90%	< 450	< $18K	1.00–1.50
Sage City	> 40%	< 75%	770–450	> $22K	< 1.00
Typically Performing Middle Schools					
Locus Glen	17–40%	> 90%	770–450	< $18K	0.00–0.20
Silver City	> 40%	< 75%	770–450	$18-22K	−0.2
Tarelton	> 40%	> 90%	<450	> $22K	0.00–0.20
All Middle Schools in NYS					
Median	27%	85%	620	$20K	
Mean	30%	79%	650	$20K	
Std. Dev.	0.20%	20%	317	$4.2K	

Ranges and rounding of numerical data are provided to ensure anonymity. All school and district names are pseudonyms. Percentages for each subgroup are not provided so as to minimize the possibility of deductive disclosure.

(Schiller, Durand, Wilcox, & Lawson, 2015). Further, to reflect the diversity of schools in New York and provide for opportunities to triangulate across subsets of data, two odds-beaters and one typical school were selected in each urbanicity category (i.e., rural, suburban, and urban) as defined by the National Center for Educational Statistics (NCES, n.d.). See **Table 1** for sample demographic details.

Data collection

Schools were recruited by a research-team member (university administrative staff) who also obtained consent from the district superintendent and building principal to participate in the study. That same research-team member provided a modest stipend to districts for facilitating the site visits, providing documents, and obtaining substitute teachers as needed. Field research teams consisting of three to

four members completed each site visit over two days. Each team included a leader (university faculty member) and a co-leader (either a faculty member or an advanced doctoral student), as well as at least one assistant (doctoral student) who shared responsibility for data collection, transcript preparation, and interpretive memo and summary report writing. All members were certified in human-subjects research by the university's Institutional Review Board.

Each team underwent training to provide background on the intent of the study and to become familiar with the protocols. All field teams received further guidance from team leaders who had normed practices through modeling in the field in order to facilitate the standardization of data collection procedures on subsequent site visits (Creswell, 2013).

This embedded study was framed by several lines of inquiry from the larger study: school and district leadership, curriculum, instruction, and relational trust. These lines of inquiry, and several others, informed the development and content of the data-collection protocols. This study included data collected using the semi-structured interview protocols and the protocols for classroom observation and teacher debriefing. (Creswell, 2013). We present a matrix of the lines of inquiry, the phenomenon of interest, and data collection tools in Appendix B, as well as sample interview, focus group, and classroom observation protocols in Appendix C.

Team members conducted interviews with district leaders that lasted for approximately one hour, asking a series of open-ended questions designed to elicit responses on policy implementation, practices, and procedures within their district and particularly in the middle school participating in the study. These leaders were asked to provide descriptions of who was involved and what happened, and their perceptions of success and challenges within the district. All respondents were asked the same set of questions to collect comparable data across sites, with some variability in the questioning to allow for optimal relational connections with participants (Kvale & Brinkman, 2009).

School leaders participated in specially designed, individualized interviews. Teachers and support staff participated in focus groups, with questions focusing on how they were approaching implementing the new standards, their responses to the APPR system, and more general questions about their goals for instruction. These interview

Table 2. Data source summary middle school odds-beating study participants.

Data Source	Count
District Administrator Interviews	35
Building Administrator Interviews	22
Teacher Focus Groups/Participants	44/122
Classroom Observations	49
Building Leadership Team Focus Groups/Participants	2/12
Support Staff Interviews/Focus Groups/Participants	8/24

and focus-group protocols were designed to solicit key information from across different stakeholders, allowing for triangulation across district leaders, building leaders, and teachers, as well as to uncover discrepancies among stakeholders. Additionally, observations of ELA and math classrooms were conducted and teachers, as available, were asked follow-up questions regarding their lessons. **Table 2** provides a summary of data sources by type.

Data analysis

In alignment with recommended procedures for qualitative data analysis (Creswell, 2013) interpretive "memoing" began while research teams were on site. An interpretive memo protocol that prompted field teams to record emerging interpretations and follow-up questions was completed after the first day and the second day of data collection. These memos, completed in the field, allowed us to begin to look for discrepancies among participants. In addition, the lead and co-lead kept interpretive memos and shared burgeoning interpretations with the entire research team during regularly scheduled meetings.

Once interview, focus-group, and observation field-note files were transcribed and/or proofed for errors, they were loaded into NVivo 10 (QRS International Pty Ltd., 2012) qualitative software. In the first phase of analysis, the goal was to craft accurate and richly described cases. The data were first coded by team members using an a priori scheme derived from the study's lines of inquiry (Miles & Huberman, 1994). To norm the coding procedure, several steps were taken: (1) each coder who had participated in at least one school visit was assigned to the case-writing team; (2) team leaders coded a subsample

of data, generating code descriptions, and conducted inter-rater tests on the codebook until an agreement rate of over 90% was reached, and then (3) all coders underwent an orientation to the codebook and participated in a norming session on the application of codes to the data set. Next, each coder developed a case study, which was shared with the lead and/or co-lead of the site visit to ensure an accurate portrayal. The cases were finally member checked by a superintendent or assistant superintendent and the school principal. Any inaccuracies were reconciled in the final case-study report (Creswell, 2013; Yin, 2013).

In the next phase of analysis, cross-case comparisons proceeded both deductively and inductively (Miles, Huberman, & Saldana, 2014). This analysis began with the extraction of code reports by each a priori category using the matrix query function in NVivo 10, which facilitated the comparison of data from the odds-beating and typically performing schools (Yin, 2013). Each team member then took an inductive approach to create a matrix to capture themes evident in the data (Miles et al., 2014). The themes identified, such as elements of distributed instructional leadership, were informed by theory as well as grounded in data. During analysis, we sought to identify patterns as well as outliers in participants' perspectives.

As team members continued to review the data, they used triangulation procedures to verify evidence across multiple sources to determine the extent to which a particular theme was evident in each case (i.e., source triangulation). This process was similar to axial coding in that the purpose was to relate codes and categories of them to each other (Corbin & Strauss, 2014). This analysis was recorded in a matrix to facilitate comparisons across each of the nine schools. Next, team members shared their findings across the lines of inquiry to identify relationships among the themes both within and across each of the cases (i.e., researcher triangulation).

Qualitative comparative analysis was utilized at this stage. This procedure allowed for quantification of the qualitative data to assess the extent of contrast between typically performing and odds-beating schools. In brief, the Qualitative Comparative Analysis (QCA) scale of 0 indicates absence of evidence; .5 indicates partially present/sometimes present/low or medium salience across multiple participants; and 1 indicates pervasive, regularly present, high salience across multiple participants (Ragin, 2008).

In sum, the design of this study included multiple methods to enhance the credibility of the multiple case-study analysis: interpretive memoing, source triangulation, researcher triangulation, and member checking (Creswell, 2013; Yin, 2013).

Findings

This study identified four qualities of distributed instructional leadership that support teacher performance adaptation: (1) routines for collective goal setting; (2) routines for feedback; (3) routines for collective, guided learning in professional learning communities; and (4) trusting relationships. As evident in **Table 3**, these practices existed on a continuum. However, we found greater evidence of these practices at the odds-beating schools. The findings are described in the following section.

Collaborative goal setting

Routines for collective goal setting were evident to some degree in all schools. However, at five of the odds-beating schools, these routines crossed school and district boundaries, included a broader range of stakeholders, and provided a goal orientation for teachers. At the

Table 3. Findings summary.

	Collective Goal Setting	Instructional Feedback	Collaborative Learning	Trusting Relationships
Hutch Hill	1	1	1	1
Julesberg	.5	1	0	.5
Laribee	.5	1	1	1
Roaring Gap	1	1	1	1
Ruby	1	0	1	1
Sage City	1	1	1	.5
Locus Glen	.5	.5	0	0
Silver City	1	1	.5	.5
Tarelton	.5	0	0	0

1 = strong evidence across participants

.5 = mixed or weak evidence across participants

0 = no evidence across participants

typical schools, these routines were more limited and teachers lacked clarity on school and district goals.

Collaborative goal setting at four of the odds-beating schools included two-way communication between school staff and district leaders. For example, at urban Sage City, a teacher reported, "I would say, it is top down and bottom up. So, top down, from administration to us, the front-line teachers, but also bottom-up. . . We create goals and objectives at a lower level as teams with our chairperson." Similarly, at suburban Hutch Hill, the superintendent identified two-way communication in goal setting: "It comes originally from the field [building leaders and teachers] to the board and then back to the field."

Routines for two-way communication in collective goal setting were exemplified at Roaring Gap. The superintendent reported that annual goal setting begins with "very careful diagnostics" of district data "with the [school] board through a community forum with the school administrators. We have gatherings of stakeholders and basically, we go through the state of our district." This process results in "templates" for the building leaders to "look at how they can contribute to the district and then also address other needs that are unique to their schools."

In turn, building leaders developed goals for their schools and saw their job as helping teachers meet them. The assistant principal at Roaring Gap reported, "One of my jobs is to take the building goals and the district goals and try to make them happen in the classroom." Teachers also reported opportunities during faculty meetings to "share out ideas based" on specific district goals. The superintendent of Roaring Gap credited this process with helping the district move from a "confederation of loosely coupled classrooms and schools" to a "comprehensive, cohesive school district."

This idea of a comprehensive school district in which teachers understood the goals was also evident at Laribee, where a district administrator reported that "planning together" at the district level helped create alignment. Similarly, the superintendent of Hutch Hill reported, "[The board] really appreciates the fact that the teachers are involved in developing the goals because they know that the goals are going to be carried out. Faculty have input in the goals so they are going to be passionate about those goals once they are adopted." In turn, the principals stated, these goals "ultimately drive the decisions that we make district-wide. We're constantly communicating about things

we're doing programmatically to make sure that we're on the same page." Teachers at Hutch Hill also described how these goals contribute to decision making.

On the other hand, at the typical schools, we observed limited evidence of collaborative goal setting or limited clarity on the part of teachers. For example, at typical Locus Glen, the superintendent reported that the board and building leaders provide input on district goals and "filters for action." However, at the building level, only the principal referenced these "wildly important goals" and did so in a limited manner. At Tarleton, the superintendent reported, "We paid teachers over the summertime up to 30 hours and their job was to take the school improvement plan from the year before and we do an evaluation of that." While teachers and leaders identified "high expectations" and "college readiness" as important goals, there was no evidence of a shared understanding of how to specifically meet these goals.

At typical school Silver City, there was evidence of collaborative goal setting, as a district administrator reported "collaborative" goal setting, starting with "the administrative team identifying key focus areas for the district that are driving our mission and our vision and supporting students." Drafts of goals received feedback from building leaders, the board of education, and other groups in order to "fine tune them." However, this administrator also reported, "We have a lot of goals. That's why we're all very tired." These goals not only included RTTT implementation but also implementing the International Baccalaureate model in PreK through Grade 12 and the AVID model in Grades 6–12. This innovation overload appeared to contribute to teachers' lack of clarity on district goals.

Instructional feedback roles and routines

Feedback routines provided teachers input on their classroom behavior. As state-level APPR policy required the use of state-approved observation rubrics in annual teacher evaluations, we identified evidence of teacher observations across each of the nine schools. However, at five of the odds-beating schools (see Table 3) we identified strong evidence of feedback beyond the policy mandates. At the typical schools, we observed this at only Silver City.

Among the odds-beating schools, instructional leaders embraced APPR as an opportunity to engage teachers in generative and productive conversations about instruction. For example, at suburban Laribee MS, the principal reported, "I think the new APPR process, it really helps us to have that dialogue with a teacher. It drives our preconference conversations and post-conference conversations. . . I think we have more dialogue with teachers about how lessons went. . . than before." Similarly, at Hutch Hill MS, the assistant principal reported that APPR had spurred him to provide more constructive feedback to teachers, stating "It's like a 30-minute conversation about instruction, and I feel like when the dialogue is open, that's just one more step in showing the teacher the support they have and also kind of expectations." He continued, "So in terms of APPR changing anything, it hasn't changed my rapport with my teachers, it has changed the way that we do things." The principal at Hutch Hill reported ongoing attention to bringing instructional leadership to his interactions with teachers: "I have worked very hard . . .to be an instructional leader, and have taken great pleasure in knowing the impact of quality instruction and student engagement, and working with staff to do things that are purposeful and meaningful."

At Roaring Gap, district leaders leveraged the APPR policy as a way to "work a lot on the quality of our feedback" This proceeded in several ways, including aligning target areas of the teacher observation rubric to the school improvement plan and developing a district template for feedback conversations. The principal reported using these target areas of the rubric with teachers to improve their practices:

> We want our teachers to be able to build a level of sophistication with the rubric. . .That's my utopia when they tell me they're purposefully planning where they really think they're going to challenge kids at a high engagement level. So, we kind of talk about that and how we go back. So, when I have a post-observation, I always give them feedback.

Additionally, routines for feedback at Roaring Gap were strengthened through district administrators conducting walk-throughs with building leaders and discussing "what [the] coaching is going to be, what [the] conversation with the teacher will be like."

In addition to leveraging the formal feedback system to improve instructional conversations, school leaders at the odds-beating schools were reported to engage more frequently in informal "walk-through" routines and provide written or verbal feedback. For example, at urban Sage City, the assistant principal described this formative feedback: "[The principal] and I are always in and out of the classrooms, not trying to say, 'Ok, you know you shouldn't be doing this' but to support and to help guide instruction." She further reported, "[We] meet with individual teachers or teams of teachers to help guide their instruction." At Hutch Hill, the principal reported instruction was an "all day, every day conversation" with his teachers. He continued, "Whether you're revamping a lesson from one year to the next or one block to the next, it's about reflection and always looking to analyze your practice and it's about student learning."

At several odds-beating schools, instructional coaches also engaged in providing teachers with instructional feedback. For example, at urban Julesburg the assistant principal explained the importance of multiple leaders providing feedback: "The coaches focus on things that are different from me [when observing lessons]. They look at the particular subject matter and if teachers are covering it." At rural Roaring Gap, coaches provide feedback, as well as "side-by-side coaching." The superintendent described the purpose of this coach as, "[The coaches'] job is really just to work hand-in-hand with teachers. Co-teaching lessons and co-planning. Not just helping teachers understand, but also model and give feedback on a collegial basis for what the Common Core looks like."

Among the typical schools, there was some evidence of routines for walk-throughs at Silver City, where the principal reported that building leaders

> are in classrooms a lot to see what's going on. I make a point, and I am not 100% perfect with this, but I make a point to shoot people an e-mail as I'm walking down the hall about, "Hey, thanks, you know I really enjoyed seeing a high level of student engagement. I liked hearing the students talk in collaboration." [I] just shoot them some kind of feedback even though it's not formal.

In contrast, at Locus Glen and Tarleton there was limited evidence of feedback as an important driver of teacher behavior change. At Locus Glen, school building leaders reported conducting walkthroughs once a year and a district administrator reported only discussing feedback with teachers when requested. At Tarleton, a teacher reported, "I feel like the feedback I get is not much different than what we had at our old evaluation. We go through what we did right, what we did wrong." Another teacher noted that the documentation requirements of APPR limited feedback, "It does not allow for accurate evaluations of the staff. If the administration did not have as much busywork it would allow them the opportunity to be in classrooms, so they can see the teaching more than once a year and more one than walk-through." However, the principal was aware of this issue: "How are we going to get them valuable instantaneous feedback to change their instruction if it's going to be two– three weeks out? Something's got to be done." He spoke of using a Google Document checklist for walk-throughs in a previous position to provide "instantaneous feedback."

Collaborative guided-learning roles and routines

At five of the odds-beating schools, there appeared to be more robust routines for professional learning communities (PLCs) in grade-level or content-area teams (see Table 3). At these schools, teachers and leaders viewed PLCs as a place for instructional leaders to engage teachers around instructional improvement. At the typical schools, these routines were either absent or described as ineffectual.

For example, at odds-beating Hutch Hill, department chairs were identified as driving ongoing professional growth. One teacher reported, the chair "sets the tone for us to aggressively pursue the latest research. I think that the hallmark of our department is that we are never satisfied. I think that we are always looking for the new book studies, new resources, and we actively seek those out and pursue those." Similarly, at urban Julesburg, the ELA supervisor reported, "I try to shift department meetings from talking memos to planning and conversation meetings and provide to all departments more professional development."

In addition to embedding professional development in PLCs, at five of the odds-beating schools, teachers and instructional leaders reported using data inquiry routines during PLC meetings to guide

teacher learning. These processes included item analysis of common assessments. At Hutch Hill, a teacher described efforts to align these assessments to the state tests, "Most of our quizzes are aligned to look like the [state] tests will look. We try to make short answers similar to what they will do on the ELA assessment." Similarly, at Roaring Gap, the superintendent reported, "Teachers have developed assessments that mirror the state assessments" using information and examples from the state. He continued, "I really think that's kind of why we're doing as well as we are." Similarly, a teacher at Laribee reported that looking at this data is "really a way to refine your instruction."

At several of the odds-beating schools, principals and coaches worked directly with teachers, using item analysis, collaborative curriculum development, and data-driven inquiry to focus on instructional improvement. At suburban Hutch Hill, the principal described using item analysis with teachers to determine "what did you do in your classroom that allowed your students to do better than the rest?" At urban Sage City, teachers reported a similar approach: "We share everything—what works, what isn't working, lessons, and periodic benchmark assessments. . . [asking] where are the gaps, how do we close those gaps, what should we be focusing on?" The principal serves as a facilitator of this process and reported, "When we look at the assessment results, we have to ask ourselves if there are big gaps, is it a curriculum issue? Did we not address it? Did we not teach it long enough? If we retaught it, did we teach it the same way and kids aren't getting it?"

At rural Roaring Gap, district administrators reported leveraging the policy mandates to strengthen data-driven inquiry routines. To do so, district leaders created a rubric for high-quality- data meeting and provided embedded professional development for teachers and coaches. Following district benchmark assessments, the instructional coaches engage teachers in data-driven inquiry and action planning. The superintendent identified these data-meeting routines as driving instructional change: "They are actually now embracing the use of data to think about instructional interventions and to change instruction." The principal also identified these routines as opportunities for teachers to try new things and learn together. He stated, "So let's try and agree to do something differently and then let's measure the impact of what we've done to determine whether that improved practice or not."

On the other hand, we observed limited evidence of effective PLCs or guided data inquiry at the typical schools. At Locus Glen, budget cuts eliminated common planning time, which teachers lamented as taking away opportunities to better support students. At Tarleton, teachers reported limited opportunities to work together and a lack of routines for teacher teams: "I think we sought people out individually. It hasn't been something that's been a district-coordinated effort." At urban Silver City, data inquiry revolved mainly around state assessment scores and instructional coaches appeared to provide limited guidance to teachers on using data. The principal at Silver City conceded that while they have common assessments, "they are not very good," and at Locus Glen, a teacher reported rather than a proactive approach to assessment, "We are reactive to the tests now."

Trusting relationships

At four of the odds-beating schools, the roles and routines of distributed instructional leadership identified above were supported by positive relationships (see Table 3). At these schools, instructional leaders engaged in deliberate efforts to build relationships and to facilitate teacher performance adaptation by supporting risk-taking, allowing teachers to use feedback and providing motivation for change.

At Hutch Hill, the principal and teachers described a climate of reciprocal trust (Lawson et al., 2017), based on "collective gathering of information" for decision making. This trust appeared to support the principal's description of risk taking:

> To say that we have to teach everything in the same lockstep, all the time, I think that doesn't allow you to grow as a professional. We've got to take some risks and try some things. Maybe one of three does it and we analyze how that went and adjust accordingly.

Likewise, at Roaring Gap, the principal emphasized the importance of trust and messaging about trying new things, and using data "to collaborate and share and figure out how we can [discuss instruction] in a safe way." He also stated he communicated to teachers, "How much I appreciate the willingness to take that risk."

Additionally, the Roaring Gap principal identified positive relationships as supporting teachers' ability to "hear feedback." The principal reported, "My goal this year is to give feedback in a way people can hear it and value it. Because I want them to feel like they are a really important part of that process. So, to me, trust is really important. I try to make contact with all my teachers on a daily basis." Similarly, an instructional coach at Roaring Gap reported developing "a bank" of relationships, which allowed him to observe: "Have I had to have some frank conversations? Absolutely, but I feel I can do that now because I have developed the relationship to say, time out, let's just talk about this." He continued, identifying the importance of being uncomfortable in such conversations as driving growth.

Teachers at several odds-beating schools reported that collegial relationships supported their motivation to change as a part of "collective responsibility." At rural Ruby, teachers reported the value of these relationships: "It's team work. It really is a willingness to share and a willingness to work side by side." Teachers, in turn, reported, "[The Common Core] pushes me, it keeps me. . . motivated to stretch. . . it encourages me to see bigger and better activities." Similarly, at Hutch Hill, teachers reported a "culture of interconnectedness." One teacher attributed this to administrators who "set the tone" and created an "environment of teamwork." She continued, referring to research on friendships in the workplace, "I think that our PLCs have allowed for vital friendships." These vital friendships also contributed to the work of a school-wide literacy council that worked to integrate the new standards prior to RTTT, which the principal described as contributing to "collective responsibility that we feel as a building that everyone is doing this."

Similarly, at urban Julesburg, teachers reported, "We're almost like a big family." Teachers expressed that these relationships supported their ability to work through disruptive change: "I think what really helps us do it, is our collaboration. To put our heads together to make sense of a very difficult, I guess you'd say turbulent time in education. We're getting some support, but it's really great to know we have a really intelligent group of teachers that don't mind sharing and collaborating and work well together and that makes it, it just makes it that much more worth the effort." The principal of urban Julesburg reported that relationships contributed to motivation, "We. . .create our

relationships, so the human resource is that people are happy to be here. . .Some people are going above or beyond, and that's just amazing." In turn, she reported that increasing teacher buy-in for the standards contributed to teacher's classroom performance.

In contrast, at two of the typical schools, attempts by instructional leaders to build relationships hit roadblocks. At Locus Glen, the assistant principal reported that in giving instructional feedback "It has really been a conscious effort so it's not a 'got you,' but rather it's a relationship that you've got to build." However, teachers reported negative feelings toward administrators due to several top-down decisions made in implementing RTTT, including a last-minute decision to scrap the district's teacher-created curriculum in favor of the state curriculum modules. One teacher at Locus Glen expressed this frustration:

> Incrementally, control was taken away. First, it had to be you're teaching the same thing at the same time, not just, here are the skills that the kids have to leave you with. But now you have to teach the same stuff at the same time and now we have to teach the modules. And now our grade books have to look identical. And now you can only weight things a certain way. . . just one more thing in a litany of ways to take control away from us. I think it makes us feel devalued.

Similarly, at Silver City, the principal spoke about the importance of relationships for feedback: "It all boils down to relational capacity and that people know that they can come to me and that people know that when I come in with very critical feedback that it's not an attack on their character." However, confusion over the multiple instructional initiatives created challenges that eroded trust. For example, one teacher reported that the International Baccalaureate Middle Years program was "overwhelming" and "I don't see how it fits. . . it's one more thing to do." At Tarleton, teachers appeared to trust each other; however, recent turnover of the principal and assistant principal, as well as the lack of formal PLCs, appeared to limit the reciprocal trust that supported risk taking, feedback, and motivation at the odds-beating schools.
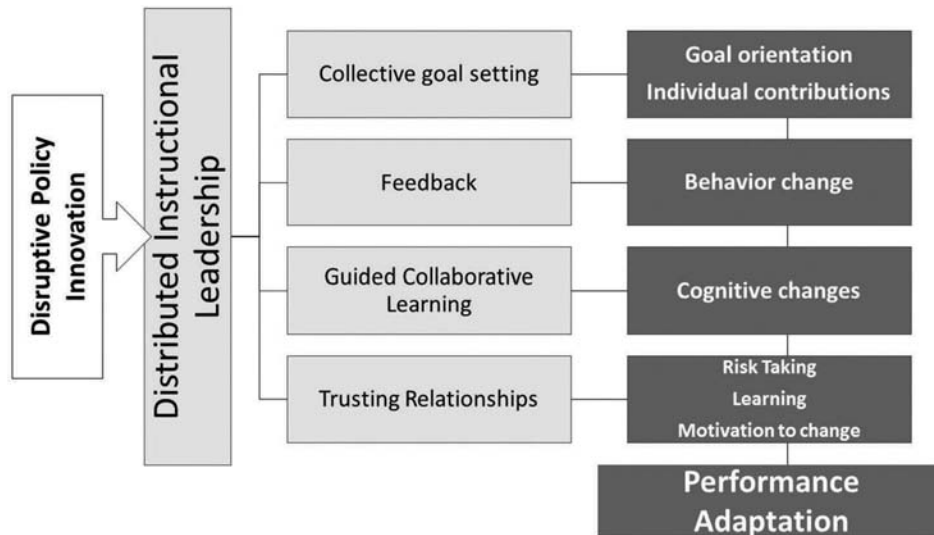
Figure 1. Relationship between distributed instructional leadership and teacher performance adaptation.

Discussion

By comparing distributed instructional leadership practices of odds-beating schools with those at typically performing schools during a time of disruptive policy innovation called Race to the Top, this study identified four qualities of distributed instructional leadership that contribute to domain-specific teacher performance adaptation: (1) collective goal setting, (2) instructional feedback, (3) collective guided learning, and (4) trusting relationships. Based on our findings, we theorize relationships between those distributed instructional leadership qualities and specific aspects of teacher performance, as illustrated in **Figure 1.**

These findings suggest that roles, routines, and relationships that align conceptually with distributed instructional leadership, in which distributed cognition is developed through individuals who cross the plane between leadership and instruction, are related to better-than-predicted student outcomes (Halverson & Clifford, 2013; Spillane et al., 2004). Crossing the plane between leadership and instruction was particularly evident in the routines for collective goal setting that included two-way communication. Such two-way communication in

goal setting can flatten hierarchies (Kitchen, Gray, & Jeurissen, 2016) and potentially reduce demands for top-down compliance to policy changes (McAllister, 1995).

Additionally, we observed that in schools where teachers contributed to goal setting, there appeared to be a greater understanding of teachers' individual and collective roles in change efforts. Not only did this contribute to goal-orientation that supports domain-specific performance adaptation (Baard et al., 2013), such shared understandings appear related to the brokering and sense-making in which leaders engage within these boundary-spanning routines (Coburn, 2001, 2005;Coburn&Russell, 2008;Durand et al., 2016; Elmore, 2004). In turn, such shared understanding of goals contributes to coherence between internal and external demands (Honig & Hatch, 2004).

At the odds-beating schools, we identified a greater focus on feedback routines that included boundary-crossing instructional leadership tasks. These routines included feedback from frequent walk-throughs, as well as from formal observations. Adaptive feedback, which builds on previous efforts, provides support for performance adaptation (Baard et al., 2013). Instructional leaders at the odds-beating schools tended to embrace the new policy mandates as an opportunity to engage teachers in conversations about instruction, rather than as a rule-driven mandate to follow (McAllister, 1995). In some cases, school goals and teacher evaluation rubrics were closely aligned to increases in adaptive feedback.

Similarly, we observed a greater emphasis on utilizing PLCs as a mechanism for guided learning at the odds-beating schools. In these PLCs, principals, department chairs, and instructional coaches engaged directly with teachers around instruction, providing opportunities for the guided exploration that contributes to performance adaptation (Baard et al., 2013). While Baard et al. (2013) identify guided exploration as a step-by-step process, the complex interplay of teachers' knowledge, beliefs, and local context suggests the need for teacher development that addresses previous knowledge and is context specific (Timperley, 2008). Teacher teams that focused on student data and trying new instructional approaches appeared to create such learning opportunities for teachers as they implemented the CCSS in their classrooms.

Also of note, risk-taking was identified more frequently at the odds-beating schools. In particular, school principals at several odds-beating schools emphasized the importance of trying new strategies and framed errors as normative and a way to spark learning (Frese et al., 1991). At these schools, risk-taking was supported by deliberate efforts on the part of principals and instructional coaches to build trust with teachers.

In addition to supporting risk-taking, trust appeared to facilitate the other aspects of performance adaptation through supporting "vital friendships" between teachers, which in turn appears to have encouraged teacher teams to engage in problem solving together (Hoy, 2002). Trust also enabled teachers to be vulnerable and to seek out help from experts (Van Maele, Moolenaar, & Daly, 2015), including peers, instructional coaches, and other instructional leaders. The development of trust requires both routines for interactions, such as common planning time, but also attention to the quality of these peer relationships (Van Maele et al., 2015). In an environment of high-stakes accountability, including teacher evaluations tied to assessment scores, trust appeared particularly salient for supporting social learning through risk-taking and discussion.

These findings suggest the importance of distributed leadership roles, routines, and relationships in implementing policy innovations that target curriculum and instruction (Firestone & Martinez, 2007; Hallinger & Heck, 2010), school change (Camburn et al., 2003), organizational learning (Day et al., 2011), and school improvement (Leithwood, 2016).

Finally, the findings suggest that when policymakers generate pedagogical changes without attending to capacity building, group work, or system-ness, distributed instructional leadership at the school and district levels serves as a prerequisite for implementing changes in the instructional core. Distributed instructional leadership does so by supporting domain-specific performance adaptation on the part of teachers. However, the variation in distributed instructional leadership in the odds-beating and typically performing schools suggests that policymakers seeking large-scale improvement of student outcomes cannot simply rely on pedagogical changes without attending to the other three drivers of change, which are capacity building, group work, and systems-ness (Fullan, 2011).

Limitations

This study's manifest limitations merit mention in service of improvements in future research. First, this study is constrained by the sampling strategy, which focused intentionally on higher-performing schools with higher levels of student diversity and poverty. These "odds-beating" schools provided a unique opportunity to examine processes and practices of schools that were unique in their capacity to absorb the disruptive policy innovations of RTTT without experiencing expected performance declines. However, it purposefully excluded low-performing schools as a comparison due to the burden of state reviews occurring at the time of the study. Consequently, we are unable to determine how qualities of distributed instructional leadership and performance adaptation operate in schools with persistently low student performance and related challenges, such as high teacher turnover.

Our sample is limited in another way. It includes only nine schools, in a single state, suggesting cautions regarding generalizability. Lastly, the data-collection design provided only a snapshot of teachers' classroom activities and relied largely on teachers' and leaders' descriptions of change. Our data-collection strategies did not provide opportunities to observe the distributed leadership practices in action to focus on the micro-processes of sense-making (Coburn, 2006) that could provide greater insight into how collaborative goal setting, feedback, and guided learning within PLCs supports teachers' performance adaptation in the classroom.

These limitations suggest the need to develop and implement longitudinal studies that examine implementation of policies aimed at the instructional core over more extended periods of time and in schools with various organizational capacities (i.e., lower-performing, higher-turnover schools) in order understand the mechanisms of teacher performance adaptation as they occur within interactions with instructional leadership.

Conclusion

A quotation from Leithwood and colleagues (2011) introduces the current study's conclusions: "For school reforms to matter, they need to matter for what teachers do in the classroom" (p. 21). This is easier

said than done, as research has documented the challenges of effecting changes in the instructional core of schooling at scale (Elmore, 2004). This history illuminates the challenges with New York's RTTT policy innovations. While RTTT boldly combined standards-based curricular reform and accountability-based mechanisms to take aim at the instructional core (Coburn et al., 2016), they repeated previous policy errors in their failure to prioritize capacity building, collaboration, and alignment of the state-level system. By default, the RTTT policies left district and school leaders with primary responsibility for implementation, including supporting teachers' performance adaptation for instructional changes.

As illustrated by this study, variation in these leaders' capacities for distributed instructional leadership reduced the likelihood of creating desirable change in the instructional core at scale. Our findings also echo the conclusion offered by Hatch (2009): it takes capacity to build capacity. In particular, capacity is necessary to react in positive ways to disruptive policies (Zahra & George, 2002; Zuckerman, Wilcox, Durand, & Schiller, under review). The variability of distributed instructional leadership roles, routines, and relationships among the schools in this study suggest that those with comparative advantages in this area are innovation ready, while schools lacking in distributed instructional capacity may experience declining performance in the face of disruptive innovations. This can lead to undesirable effects, which was particularly evident in one of our typically performing schools where policy mandates, coupled with top-down decision making and limited distributed instructional leadership, led to negative teacher affect and motivation. Among schools with more significant challenges, such policy innovations may lead to greater performance declines as teacher adapt to external pressures in undesirable ways.

This study also reflects Elmore's (2016) recognition of the importance of adult learning for change. Similarly, Fullan's (2011) "right" drivers of change draw attention to the need for policymakers to consider how adults, and organizations, learn in order to create the changes they wish to see (Baard et al., 2013; Bryk, Gomez, Grunow, & LeMahieu, 2015). This study lends additional support to the call for policymakers to go beyond standards-based and accountability-based mandates to enact changes that rely on teachers' cognition, behavior, and motivational adaptations in the instructional core. To support such changes, future policy-innovation implementation plans need to

provide resources to support distributed instructional leadership capacity and collaboration, as well as to support the alignment of objectives across states, districts, and schools (Fullan, 2011).

References

Baard, S. K., Rench, T. A., & Kozlowski, S. W. (2013). Performance adaptation: A theoretical integration and review. *Journal of Management*, *40*, 48–99.

Browning, P. D. (2014). Why trust the head? Key practices for transformational leaders to build a purposeful relationship of trust. *International Journal of Leadership in Education: Theory and Practice*, *17*(4), 388–409. doi:10.1080/136 03124.2013.844275

Bryk, A., Gomez, L. M., Grunow, A., & LeMahieu, P. G. (2015). *Learning to improve: How America's schools can get better at getting better*. Cambridge, MA: Harvard University Press.

Bryk, A., & Schneider, B. (2002). *Trust in schools: A core resource for improvement*. New York, NY: Russell Sage Foundation.

Bryk, A., Sebring, P., Allensworth, E., Luppescu, S., & Easton, J. (2010). *Organizing for school improvement: Lessons from Chicago*. Chicago, IL: University of Chicago Press.

Camburn, E., Rowan, B., & Taylor, J. E. (2003). Distributed leadership in schools: The case of elementary schools adopting comprehensive school reform models. *Educational Evaluation and Policy Analysis*, *25*(4), 347–373.

Christensen, C. M., Horn, M. B., & Johnson, C. W. (2011). *Disrupting class: How disruptive innovation will change the way the world learns*. New York, NY: McGraw Hill.

Clifford, M. (2009). *Dissecting local design: Instructional leadership, curriculum, and science education* (Unpublished doctoral dissertation). University of Wisconsin–Madison, Madison, Wisconsin..

Coburn, C. (2003). Rethinking scale: Moving beyond numbers to deep and lasting change. *Educational Researcher*, *32* (6), 3–12.

Coburn, C. (2004). Beyond decoupling: Rethinking the relationship between the institutional environment and the classroom. *Sociology of Education*, *77*, 211–244.

Coburn, C. E. (2001). Collective sensemaking about reading: How teachers mediate reading policy in their professional communities. *Educational Evaluation and Policy Analysis*, *23*(2), 145–170.

Coburn, C. E. (2005). Shaping teacher sensemaking: School leaders and the enactment of reading policy. *Educational Policy*, *19*(3), 476–509.

Coburn, C. E. (2006). Framing the problem of reading instruction: Using frame analysis to uncover the microprocesses of policy implementation. *American Educational Research Journal*, *43*(3), 343–349.

Coburn, C. E., Hill, H. C., & Spillane, J. P. (2016). Alignment and accountability in policy design and implementation of the Common Core State Standards and implementation research. *Educational Researcher*, *45*(4), 243–251.

Coburn, C. E., & Russell, J. L. (2008). District policy and teachers' social networks. *Educational Evaluation and Policy Analysis*, *30*(3), 203–235.

Coburn, C. E., & Woulfin, S. L. (2012). Reading coaches and the relationship between policy and practice. *Reading Research Quarterly*, *47*(1), 5-30.

Cohen, D. K., & Ball, D. L. (1999). *Instruction, capacity, and improvement* (Report Series RR-43, iii-41). Philadelphia, PA: Consortium for Policy Research in Education.

Coldren, A. F. & Spillane, J. P. (2007). Making connections to teaching practice: The role of boundary practices in instructional leadership. *Educational Policy*, *21*(2), 369–396.

Corbin, J., & Strauss, A. (2014). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage.

Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage.

Day, C., Jacobson, S. L., & Johansson, O. (2011). Leading organizational learning and capacity building. In K. A. Leithwood, R. M. Ylimaki, & S. L. Jacobson (Eds.), *Studies in educational leadership: Vol 12. US and cross-national policies, practices, and preparation* (pp. 29–49). Dordrecht, the Netherlands: Springer.

DuFour, R., & Fullan, M. (2013). *Cultures built to last: Systemic PLCs at work*. Bloomington, IN: Solution Tree Press.

Durand, F.T., Lawson, H. A., Wilcox, K. C., & Schiller, K. A. (2016). The role of proactive and adaptive district leadership in the adoption and implementation of the Common Core State Standards in elementary schools. *Educational Administration Quarterly*, *52*(1), 45–74. doi:l0.1177/001316IX15615391

Elmore, R. (2004). *School reform from the inside out: Policy, practice, and performance*. Cambridge, MA: Harvard University Press.

Elmore, R. F. (2016). "Getting to scale. . ." It seemed like a good idea at the time. *Journal of Educational Change*, *17*(4), 529–537.

Firestone, W. A., & Martinez, M. C. (2007). Districts, teacher leaders, and distributed leadership: Changing instructional practice. *Leadership and Policy in Schools*, *6*(3), 3–35.

Frese, M., Brodbeck, F., Heinbokel, T., Mooser, C., Schleiffenbaum, E., & Thiemann, P. (1991). Errors in training computer skills: On the positive function of errors. *Human-Computer Interaction*, *6*, 77–93.

Fullan, M. (2011). *Choosing the wrong drivers for whole system reform* (pp. 3–4). Melbourne, Australia: Centre for Strategic Education.

Fullan, M., & Quinn, J. (2016). *Coherence: The right drivers in action for schools, districts, and systems*. Thousand Oaks, CA: Corwin.

Goldsmith, P. R. (2011). Coleman revisited: School segregation, peers, and frog ponds. *American Educational Research Journal*, *48*(3), 508–535. doi:10.3102/0002831210392019

Hallinger, P., & Heck, R. H. (2010). Leadership for learning: Does collaborative leadership make a difference in school improvement? *Educational Management Administration & Leadership*, *38*(6), 654–678.

Halverson, R. (2003). Systems of practice: How leaders use artifacts to create professional community in schools. *Educational Policy and Analysis Archives*, *11*(37). Retrieved from http://epaa.asu.edu/epaa/vlln37/

Halverson, R., & Clifford, M. (2013). Distributed instructional leadership in high schools. *Journal of School Leadership*, *23*(2), 389–419.

Harris, A. (2008). Distributed leadership: According to the evidence. *Journal of Educational Administration*, *46*(2), 172–188.

Harris, A. (2010). Distributed leadership: Evidence and implications. *The Principles of Educational Leadership & Management*, *55, 69.*

Hatch, T. C. (2009). *Managing to change: How schools can survive (and sometimes thrive) in turbulent times.* New York, NY: Teachers College Press.

Hodge, E., & Benko, S. L. (2014). A "common" vision of instruction? An analysis of English language arts professional development materials related to the Common Core State Standards. *English Teaching*, *13*(1), 169.

Honig, M. I. (2006). *New directions in education policy implementation.* Albany, NY: SUNY Press.

Honig, M. I., & Hatch, T. C. (2004). Crafting coherence: How schools strategically manage multiple, conflicting demands. *Educational Researcher*, *33*(8), 16–30.

Hoy, W. K. (2002). Faculty trust: A key to student achievement. *Journal of School Public Relations*, *23*(2), 88–103.

Kitchen, M., Gray, S., & Jeurissen, M. (2016). Principals collaborative roles as leaders for learning. *Leadership and Policy in Schools*, *15*(2), 168–191.

Klar, H. W. (2012). Fostering distributed instructional leadership: A sociocultural perspective of leadership development in urban high schools. *Leadership and Policy in Schools*, *11*(4), 365–390.

Klar, H. W., Huggins, K. S., Hammonds, H. L., & Buskey, F. C. (2016). Fostering the capacity for distributed leadership: A post-heroic approach to leading school improvement. *International Journal of Leadership in Education*, *19*(2), 111–137.

Knapp, M. S., Copland, M. A., Honig, M. I., Plecki, M. L., & Portin, B. S. (2010). *Learning-focused leadership and leadership support: Meaning and practice in urban systems.* Seattle, WA: Center for the Study of Teaching and Policy–University of Washington.

Kvale, S., & Brinkman, S. (2009). *Interviews: Learning the craft of qualitative interviewing.* London, UK: Sage.

Lawson, H., Durand, F., Wilcox, K. C., Gregory, K. M., Schiller, K. S., & Zuckerman, S. J. (2017). The role of district and school leaders' trust and communications in the simultaneous implementation of innovative policies. *Journal of School Leadership*, *27*(1), 31–67.

Leithwood, K. (2016). Department-head leadership for school improvement. *Leadership and Policy in Schools*, *15*(2), 117–140. doi:10.1080/15700763.2015.1044538

Leithwood, K., & Azah, V. N. (2017). Characteristics of high-performing school districts. *Leadership and Policy in Schools*, *16*(1), 27–53.

Leithwood, K., Jacobson, S. L., & Ylimaki, R. M. (2011). Converging policy trends. In R. M. Ylimaki & S. L. Jacobson (Eds.) *US and cross-national policies, practices, and preparation* (pp. 17–28). Dordrecht, the Netherlands: Springer.

Leithwood, K., Seashore Louis, K., Anderson, S., & Wahlstrom, K. (2004). *Review of research: How leadership influences student learning*. Minneapolis, MN: University of Minnesota, Center for Applied Research and Educational Improvement.

Levine, D. M., Stephan, D. F., & Szabat, K. A. (2013). *Statistics for managers* (7th ed.). New York, NY: Pearson.

Louis, K. S. (2007). Trust and improvement in schools. *Journal of Educational Change*, *8*(1), 1–24.

Louis, K. S., Mayrowetz, D., Smiley, M., & Murphy, J. (2009). The role of sensemaking and trust in developing distributed leadership. In A. Harris (Ed.) Distributed leadership (pp. 157–180). Dordrecht, the Netherlands: Springer.

McAllister, D. (1995). Affect- and cognition-based trust as foundations for interpersonal cooperation in organizations. *Academy of Management Journal*, *38*(1), 24–59.

McDonnell, L. M., & Elmore, R. F. (1987). Getting the job done: Alternative policy instruments. *Educational Evaluation and Policy Analysis*, *9*(2), 133–152.

McLaughlin, M., & Overturf, B. J. (2012). The common core: Insights into the K–5 standards. *The Reading Teacher*, *66* (2), 153–164.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage.

Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative data analysis: A methods sourcebook*. Thousand Oaks, CA: Sage.

Mourshed, M., Chijioke, C. & Barber, M. (2010). How the world's most improved school systems keep getting better. *McKinsey*. Retrieved https://www.mckinsey.com/industries/social-sector/our-insights/how-the-worlds-most-improved-school-systems-keep-getting-better

National Governors Association Center for Best Practices & Council of Chief State School Officers. (2010). *Common Core State Standards*. Washington, DC: Authors. Retrieved from www.corestandards.org

NCES. (n.d.). *Identification of rural locales*. Retrieved January 8, 2014, from https://nces.ed.gov/ccd/rural_locales.asp

Neumerski, C. M. (2013). Rethinking instructional leadership, a review: What do we know about principal, teacher and coach instructional leadership and where should we go from here? *Educational Administration Quarterly*, *49*(2), 310–347.

New York State Education Department. (2016). *EngageNY*. Retrieved July 7, 2016, from https://www.engageny.org/

Northfield, S. (2014). Multi-dimensional trust: How beginning principals build trust with their staff during leader succession. *International Journal of Educational Leadership: Theory and Practice*, *17*(4), 410–441.

OECD (2011). *Building a High-quality Teaching Profession: Lessons from Around the World*, Organisation for Economic Cooperation and Development, Paris.

Porter, A., McMaken, J., Hwang, J., & Yang, R. (2011). Common Core Standards: The new US intended curriculum. *Educational Researcher*, *40*(3), 103–116.

QSR International Pty Ltd. (2012). *NVivo qualitative data analysis software* (Version 10). Victoria, Australia: Author. Ragin, C. C. (2008). *Redesigning social inquiry: Fuzzy sets and beyond* (Vol. 240). Chicago, IL: University of Chicago Press.

Rincón-Gallardo, S., & Fleisch, B. (2016). Bringing effective instructional practice to scale: An introduction. *Journal of Educational Change*, *17*(4), 379–383.

Schiller, K. S., Durand, F., Wilcox, K. C., & Lawson, H. A. (2015). *Identification of "odds-beating" and "typically performing" elementary and middle schools: Sampling methodology report* (A report for the New York State Education Department as part of the School Improvement Study). Albany: University at Albany, State University of New York. Retrieved from: http://www.albany.edu/nykids/files/Methods_and_Procedures_CommonCore_es.ms.7.see.addenda.for.survey.FINAL.pdf

Schiller, K.S., et al. (April, 2017). Professional Learning in a Top-down Curriculum Reform: Districts as Mediators between States and Schools. Paper presented at the annual meeting of the American Education Research Association (AERA).

Schmidt, W., & Houang, R. (2012). Curricular coherence and the Common Core State Standards for mathematics. *Educational Researcher*, *41*(8), 294–308.

Shanahan, T. (2013). Letting the text take center stage: How the Common Core State Standards will transform English language arts instruction. *American Educator*, *37*(3), 4.

Smylie, M. A., Mayrowetz, D., Murphy, J., & Louis, K. S. (2007). Trust and the development of distributed leadership. *Journal of School Leadership*, *17*(4), 469–503.

Spillane, J., & Burch, P. (2006). The institutional environment and instructional practice: Changing patterns of guidance and control in public education. In H. Meyer, & B. Rowan (Eds.), *The new institutionalism in education* (pp. 87–102). Albany, NY: SUNY Press.

Spillane, J. P. (2004). *Standards deviation: How schools misunderstand educational policy*. Cambridge, MA: Harvard University Press.

Spillane, J. P., & Diamond, J. B. (Eds.). (2007). *Distributed leadership in practice*. New York, NY: Teachers College Press.

Spillane, J. P., Diamond, J. B., & Jita, L. (2003). Leading instruction: The distribution of leadership for instruction. *Journal of Curriculum Studies*, *35*(5), 533–543.

Spillane, J. P., Halverson, R., & Diamond, J. B. (2001). Investigating school leadership practice: A distributed perspective. *Educational Researcher*, *30*(3), 23–28.

Spillane, J. P., Halverson, R., & Diamond, J. B. (2004). Towards a theory of leadership practice: A distributed perspective. *Journal of Curriculum Studies*, *36*(1), 3–34.

Spillane, J. P., & Hopkins, M. (2013). Organizing for instruction in education systems and school organizations: How the subject matters. *Journal of Curriculum Studies*, *45*(6), 721–747. doi:10.1080/00220272.2013.810783

Spillane, J. P., Reiser, B. J., & Reimer, T. (2002). Policy implementation and cognition: Reframing and refocusing implementation research. *Review of Educational Research*, *72*(3), 387–431.

Stosich, E. L. (2016). Joint inquiry: Teachers' collective learning about the common core in high-poverty urban schools. *American Educational Research Journal*, *53*(6), 1698–1731.

Timperley, H. (2008). *Teacher professional learning and development. Educational Practices Series–18 International Academy of Education International Bureau of Education. Geneva, Switzerland*, Retrieved from http://edu.aru.ac.th/childedu/images/PDF/benjamaporn/EdPractices_18.pdf

Tschannen-Moran, M., & Hoy, W. K. (2000). A multidisciplinary analysis of the nature, meaning, and measurement of trust. *Review of Educational Research*, *70*, 547–593.

Van Maele, D., Moolenaar, N. M., & Daly, A. J. (2015). All for one and one for all: A social network perspective on the effects of social influence on teacher trust. In M. DiPaola & W. K. Hoy (Eds.) *Leadership and School Quality* (pp. 171–196). Charlotte, NC: Information Age Publishing.

Wallender, J. (2014). The Common Core State Standards in American public education: Historical underpinnings and justifications. *Delta Kappa Gamma Bulletin*, *80*(4), 7–11.

Weick, K. E. (1976). Educational organizations as loosely coupled systems. *Administrative Science Quarterly*, *21*(1), 1–19.

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge, UK: Cambridge University Press.

Wu, H. (2011). Phoenix rising: Bringing the Common Core State Mathematics Standards to life. *American Educator*, *35*(3), 3–13.

Yin, R. K. (2013). *Case study research: Design and methods*. Thousand Oaks, CA: Sage.

Youngs, P., & King, M. B. (2002). Principal leadership for professional development to build school capacity. *Educational Administration Quarterly*, *38*(5), 643–670.

Zahra, S. A., & George, G. (2002). Absorptive capacity: A review, reconceptualization, and extension. *Academy of Management Review*, *27*(2), 185–203.

Zuckerman, S. J., Wilcox, K. C., Durand, F. T. & Schiller, K. S. (in press). Absorptive capacity in rural schools: Bending not breaking during disruptive policy implementation. *Journal of Research in Rural Education*.

Appendix A

New York State Education Department's Common Core 'Instructional Shifts'

ELA

Shift 1 Balancing Informational & Literary Text	Students read a true balance of informational and literary texts.
Shift 2 Knowledge in the Disciplines	Students build knowledge about the world (domains/content areas) through TEXT rather than the teacher or activities
Shift 3 Staircase of Complexity	Students read the central, grade appropriate text around which instruction is centered. Teachers are patient, create more time and space and support in the curriculum for close reading.
Shift 4 Text-Based Answers	Students engage in rich and rigorous evidence-based conversations about text.
Shift 5 Writing from Sources	Writing emphasizes use of evidence from sources to inform or make an argument.
Shift 6 Academic Vocabulary	Students constantly build the transferable vocabulary they need to access grade-level complex texts. This can be done effectively by spiraling like content in increasingly complex texts.

Math

Shift 1 Focus	Teachers significantly narrow and deepen the scope of how time and energy is spent in the math classroom. They do so in order to focus deeply on only the concepts that are prioritized in the standards.
Shift 2 Coherence	Principals and teachers carefully connect the learning within and across grades so that students can build new understanding onto foundations built in previous years.
Shift 3 Fluency	Students are expected to have speed and accuracy with simple calculations; teachers structure class time and/or homework time for students to memorize, through repetition, core functions.
Shift 4 Deep Understanding	Students deeply understand and can operate easily within a math concept before moving on. They learn more than the trick to get the answer right. They learn the math.
Shift 5 Application	Students are expected to use math and choose the appropriate concept for application even when they are not prompted to do so.
Shift 6 Dual Intensity	Students are practicing and understanding. There is more than a balance between these two things in the classroom—both are occurring with intensity.

Source: (NYSED, 2016).

Appendix B

Matrix of Lines of Inquiry and Data Collection

Lines of Inquiry	*Phenomenon of Interest*	*Data Sources*
District Office–School Relations, Alignment, & Coherence	Aligned, collaborative, and distributed leadership	School- and district-leader interviews
School Building Leadership	Distributed & collaborative leadership	School-leader interviews School building leadership team focus groups
	Innovation-implementation supports & resources	School leader interviews
Common Core Curriculum Implementation	Implementation fidelity/integrity Implementation penetration/ saturation Staff commitment/buy-in	Classroom observations School- and district-leader interviews Teacher focus groups
Teachers' Instructional Practices	Data-driven & evidence-based instruction	Teacher focus groups and key informant interviews
Organizational redesign	Distributed leadership (intra-school) Collective efficacy	School and district leader interviews Teacher focus groups
Data to evidence to intervention	School and district system use of data	School and district leader interviews Teacher focus groups

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Appendix C

Protocols

DISTRICT SUPERINTENDENT
*(Note: Questions in **bold** are priorities.)*

Introduction:

Hello, I am _____ from the University at Albany's School of Education, and we are conducting a study of your improvement strategies.

Thank you for taking time to help us with our study. With your permission, I am going to ask you a series of questions and listen to your answers. All answers are confidential, and your identity will not be revealed*. This interview should take about __ minutes.

Before we can begin, I need to go over a few things:

(1) We would like to tape record the interview to make sure that we have accurately captured the information you are providing. If you prefer that we do not tape record, that is all right, too.
(2) If you do grant us permission to tape, you may ask at any time that we stop the recorder. And if you are reluctant to continue the interview at any time, let me know, and we will stop.

(3) Before we can start, I must have your consent in writing (provide form if interviewee has not brought one with him/her and be sure all relevant areas are completed).

Interviewer: _____

District Interviewee(s) Name/Title: _____
_____

(a) **How long have you been the superintendent here?**
   What attracted you to this district?

(b) **What is the vision for this district?**

(c) **Does the district have a mission statement?[If so,] How does it relate to the vision?**

(d) **What are the goals for the district?**
   How are your goals created?
   Who is involved in the creation of goals?
   How are goals evaluated and who is involved in evaluating them?
   Are school goals related to district goals? If so, who is responsible for aligning them?

(e) **What is your philosophy of leadership?**
   What messages do you strive to convey about how people should act?
   How do you communicate these messages?

(f) **How do you define success?**
   What are the things you need to do to achieve success?
   What is your recipe for success?

(g) **In your view, what are the most important and urgent improvement priorities for your district?**
   Have these priorities changed over the past two years?
   Who decides what the priorities are?
   How are priorities evaluated and who is involved in the evaluation?

(h) How are new principals selected? What qualities do you look for?
   How do you determine their school assignments?
   What do you hold principals accountable for?
   Do you make any efforts to retain good principals?

(i) How are new teachers selected? What qualities do you look for?
   How are teachers selected for different schools, grade levels, or subject area assignments?
   Do you make any efforts to retain good teachers?

(j) **How are decisions involving <name of school> made?**
   Is the principal included in these decisions?
   If there is a conflict or difference of opinion on improvement priorities at the school, how is it resolved?

(k) **How are decisions about instructional programs or practices made? For example, does the district adopt the state's curricular modules, particular textbooks, or instructional models? [examples if needed: sheltered language instruction, project-based learning]**
(a) How does the district proceed with implementation of selected programs/approaches?
(b) Is implementation different for students with special needs, such as ELLs, gifted and talented, special ed?
(c) How do you evaluate the effectiveness of new programs or practices?
(d) MIDDLE SCHOOL ONLY: How do you ensure consistent levels of rigor across multiple sections of the same course (ex. Algebra 1)?
Are there district mandates for instructional programs?
Who is involved in making decisions about instructional programs or practices?
How are instructional programs and practices evaluated? How often and by whom?

(l) **Was implementing the CCLS a big change for your district and <name of school>? How? If not, why not?**

(m) **To what do you attribute students' performance on the CCLS-aligned assessment at <name of school>?**

(n) Has the implementation of the CCLS changed the school's (name) curriculum and instruction?
What kinds of resources or support have been offered to facilitate these changes?
What outcomes do you want from these changes?
How will you evaluate or assess these changes?

(o) **How are students with special needs—ELL, special ed, gifted and talented—supported in your district?**
What programs/practices/policies are in place for these students?
Who is involved in developing these programs?
How are the programs evaluated?
How are parents involved?

(p) **What is your process for making adjustments in resource allocations? Example:**
How have resources been allocated to align curriculum and instruction to the Common Core?

(q) **Does your district office develop its own working relationships with parents and guardians?**
Who is responsible for establishing and maintaining them?
What outcomes do you want from these relationships?
Are these efforts successful?

(r) **Does the district office develop its own working relationships with community agencies and local businesses?**
Who is responsible for establishing and maintaining them?
What outcomes do you want from these relationships?
Are these efforts successful?

Because this study is focused on how educators are responding to changes such as the CCLS and APPR, do you have any other comments to share regarding your districts' approach?

Thank you.
END

SCHOOL PRINCIPAL AND/OR ASSISTANT PRINCIPAL INTERVIEW
*(Note: Questions in **bold** are priorities.)*

Introductory Script
Introduction:

Hello, I am _____ from the University at Albany's School of Education, and we are conducting a study of your improvement strategies.

Thank you for taking time to help us with our study. With your permission, I am going to ask you a series of questions and listen to your answers. All answers are confidential, and your identity will not be revealed. This interview should take about __ minutes.

Before we can begin, I need to go over a few things:
(1) We would like to tape record the interview to make sure that we have accurately captured the information you are providing. If you prefer that we do not tape record, that is all right, too.
(2) If you do grant us permission to tape, you may ask at any time that we stop the recorder. And if you are
reluctant to continue the interview at any time, let me know, and we will stop.
(3) Before we can start, I must have your consent in writing (provide form if interviewee has not brought one with him/her and be sure all relevant areas completed).

Interviewer: _____

School Interviewee(s) Name/Title: _____
     __

(s) **Please restate your name and position and how long have you been working in this school.**
         What attracted you to this school?

(t) **What is your vision for this school?**

(u) **Does the school have a mission statement? [If so,] How does it relate to your vision?**

(v) **What are the school goals?**
         How are goals created?
         Who is involved in the creation of goals?
         How are goals evaluated and who is involved in evaluating them?
         Are school goals related to district goals? If so, how?

(w) **What is your philosophy of leadership?**
> *What messages do you try to convey about how people should act and interact?*
> *How do you communicate these messages?*

(x) **How do you define success?**
> *What things do you need to do to achieve success?*
> *What challenges do you face in achieving success in this school?*
> *How has your definition of success changed at all since the implementation of the new APPR system?*

(y) **To what do you attribute students' performance on the CCLS-aligned assessment at <name of school>?**
> *Does the level of success differ by student subgroup (e.g., African American, Hispanic/Latino, English learner)? And if so, what do you attribute this to?*
> *Do you use any special strategies or tools to provide leadership for CCLS-related implementation and professional development? Describe.*

(aa) What is your philosophy regarding middle school education?
> **What qualities do you look for in teachers at this school?**
> **How do you decide what grade levels and subject areas teachers should be assigned to?**
> *What efforts do you make to retain good teachers?*

(bb) **What kinds of professional development have you received and from whom?**
> *Are your own needs for professional development being met?*
> *[If mentoring is mentioned]—Please describe it.*

(cc) **What would you consider to be high-quality classroom instruction?**

(dd) **How has your impression of high-quality instruction changed since the implementation of the CCLS, if at all?**
> *What rubrics or guides do you use to assess whether instruction is high quality?*
> *Please describe how these are used.*
> *Are there any instructional strategies that are mandated or strongly encouraged?*
> *If so, what are they? Who was involved in deciding on these instructional strategies?*
> *How were these decided upon?*

(ee) **Have you changed your approach toward curriculum and instruction as you implemented the CCLS? If so, how?**
> *What outcomes do you want from these changes?*
> *How have you assessed the impacts of these changes?*

(ff) **How is instructional support provided to teachers in this school?**
> *Can you provide examples of the types of support?*
> *How often does this support happen?*

(gg) How are instructional programs selected in this district?
>*Who is involved?*
>*What are the criteria for selection?*
>*Are the programs mandated or strongly encouraged by the district?*
>*How are programs evaluated?*

(hh) **Has the APPR process changed your approach to evaluating teachers and their instruction? If so, how? If not, why not?**
>***How have you proceeded with APPR implementation?***
>***How is teacher performance evaluated? What observation protocols have you used?***
>***How does your assessment of instruction vary depending on teacher specialization? (e.g., content-area specialist [MIDDLE SCHOOL ONLY], ESL, special education)?***
>***How are resulting data communicated and used?***

(ii) How is student performance monitored? How are the resulting data used?
>(a) *Describe any assessments other than the state level standardized testing.*
>(b) *How frequently are students assessed?*
>(c) *How are assessments developed or chosen in this school?*
>(d) *How are assessment materials evaluated?*
>(e) *How are data evaluated and used?*
>(f) *Have you noted any impacts of data use and instruction? Please describe.*

(jj) Supplemental academic support services programs or plans (e.g., Academic Intervention Services [AIS], ESL):
>(a) *What supplemental academic support services plans are in place for struggling students? Please describe.*
>(b) *What supplemental academic support services are in place for gifted students? Please describe.*
>(c) *How do you determine when supplemental academic support services are necessary?*
>(d) *How are decisions about academic support services made? At the district or school level?*
>(e) *How do you evaluate the effectiveness of supplemental academic support services?*

(kk) **How do you develop relationships with parents and guardians?**
>***Who is responsible for establishing and maintaining relationships?***
>***What outcomes do you seek from these relationships?***
>***How would you describe the overall quality of the relationships between the school and parents/ guardians at this school?***

(ll) **Does your school have any formal partnerships with community agencies and local businesses?**
>***What outcomes do you seek from these partnerships?***
>***How do you evaluate the effectiveness of these partnerships?***

(mm) Please describe any formal organizational structures or programs that help students transition from one school to another (e.g., Pre-K to kindergarten, 5th grade to middle school; OR into middle school, or to high school).

(nn) Are there any other special features of your school that you would like to share?

Thank you.
END

MAINSTREAM CONTENT TEACHER FOCUS GROUP
*(Note: Questions in **bold** are priorities.)*

Introductory script for focus groups:

Hello, I am _____ from the University at Albany's School of Education, and we are conducting a study of improvement strategies in schools around the state. Thank you for taking time to help us with our study.

With your permission, I am going to ask a series of questions and listen to your answers and discussion. No one will be identified by name, and no one but the people in this room will know what you said. This discussion should take about an hour and will cover several broad topics including the Common Core Learning Standards and the new APPR system.

Before we can begin, I need to make sure that everyone has signed a form consenting to take part, including—if no one has any objection—consent for us to tape record the session so that we can accurately capture the information you are providing. [Provide the form and be sure they sign in both places: they are (a) willing to take part and(b) willing to be taped. You and/or assistant will need to check all forms to be sure that no one objects to taping—and to be sure everyone has agreed to participate.]

Interviewer: _____

School Interviewee(s) Names/Titles: _____

(1) Please state your positions and the number of years you have worked here.
   (What attracted you to this school?)

(2) **How would you describe the culture of this school?**

(3) What are the goals of the school?
   How are goals created?
   Who is involved in the creation of goals?
   How are goals evaluated and who is involved in evaluating them?
   Are school goals related to district goals?

(4) **MIDDLE SCHOOL ONLY**: Does your school have a special philosophy regarding middle school education?
   Do you do anything special to increase or improve college and career readiness?
   If so, how?

(5) How do you define success?

> *What are the things you need to do to achieve success in this school?*
> *What are the challenges to achieving success in this school?*
> *How well do you feel the district and school support you in achieving success with your students?*

(6) **To what do you attribute this school's level of success on CCLS-aligned assessments?**

> ***Does the level of success differ by student subgroup (e.g., African American, Hispanic/Latino English learner) and if so, what do you attribute this to?***

(7) **To what extent do you feel you have enough and appropriate resources to achieve success for your students?**

> ***For example, do you have support from the Board of Education, parents, the community? How has this support been fostered?***
> ***Do you have enough access to technology, supplies, time to achieve success for your students?***

(8) **What would you consider to be high-quality <elementary or middle level> classroom instruction?**

> ***Where did these ideas come from?***
> ***How are these instructional strategies aligned with CCLS?***
> ***What do you think contributes to high-quality instruction?***

(9) **Are there any instructional strategies that are mandated or strongly encouraged? If so, what are they?**

> ***Are there any tools or rubrics used to guide you in the use of these strategies?***
> ***Who was involved in deciding which strategies would be used?***
> ***How were these decided upon?***
> ***Please describe any training or support that you received to implement these strategies in the classroom.***
> ***Who provided the PD and to what extent has that PD been useful or effective?***

(10) **How do you plan for instruction?**

> ***What kinds of tools, rubrics, or materials do you use?***
> ***Who decides on what tools, rubrics, or materials are used?***

(11) **Have approaches toward curriculum and instruction changed with the implementation of the CCLS?**

> (a) ***If so, who determined what changes would be made?***
> (b) ***How were you supported to make those changes?***
> (c) ***What outcomes do you seek from these changes?***
> (d) ***How will you evaluate or assess the impacts of these changes?***
> (e) ***How do you determine that content is rigorous enough? Do you use any rubrics or guides to assess the level of rigor? What do you do to increase rigor?***

(12) **Has the APPR process changed your approach to curriculum and instruction? If so, how?**

> ***What has been your experience with the APPR implementation?***

(13) Has the APPR process changed your approach to assessing students? If so, how?

(14) **How do you monitor students' progress?**
   What rubrics or guides do you use to discuss student performance? Please describe how these are used.
   What assessments other than state-level standardized tests are used?
   How frequently are students assessed?
   How are assessments developed and by whom?
   How do you evaluate the assessment material?
   (a) **How are the resulting data used?**
   (b) **What kinds of information do you receive about your students' prior educational or life experiences before you begin working with them?**
   Who shares this information with you? When?
   How do you share performance and other information (e.g., social/emotional) with [middle or high] school teachers and staff?

(15) How do you engage students in learning?
   Do you think the students in this school are engaged?

(16) **Do you have opportunities for collaboration in this school? Describe**
   What is the focus of your collaboration?
   How is collaboration supported and sustained? By whom?
   What outcomes do you expect from these collaborations?
   How do you evaluate these collaborations?

(17) Are supports in place to assist students' transitions <into kindergarten? into middle school? into high school>?
   Who is responsible for them?

(18) Are there any other things that I should know about your school that you would like to share?

Thank you.
END

ELA OBSERVATION PROTOCOL

Observer:
Date:
School:
Grade: # of students:
Time:
Notes: (Inclusion, ESL push in):

Part 1: Field notes on the lesson:
A NOTE TO THE OBSERVER: Please keep in mind that this study has a keen interest in evidence of CCLS-aligned instruction. Do not limit yourself to only noting the emphases of the shifts; however, do keep these in mind as you are taking your notes. The shifts for ELA are:

(1) Balancing Informational and Literary Text
(2) Building Knowledge in the Disciplines
(3) Staircase of Complexity
(4) Text-Based Answers
(5) Writing from Sources
(6) Academic Vocabulary

As clearly and accurately as possible. . .
Take as much space as needed and provide as much detail as you can. Do not note your perceptions here, but rather what you actually see and hear. Make sure that you use consistent symbols for who is speaking (no names, but T–Teacher; T2–second teacher; S–student; X–a student called on). Also keep times at each major change of activity (T led; student-student interaction, etc. Please indicate if the beginning and/or end of the lesson is missed).

Part 2: Summary of practice
The summary a–j below may be done after the lesson if necessary.

(a) *Describe the topic and apparent purpose of the lesson*

(b) *Describe how the teacher makes connections (prior knowledge requested, Want to know, Learned [KWL] charts, text-to-text; personal experience; visuals)*

(c) *Describe the types of activities/tasks (individual, small group, choral reading; student discussion of text; practice using academic vocabulary, conventions, foundational skills (e.g., print concepts, phonological awareness); higher-order thinking; student presentation; discussion groups, group response; turn/pair/share*

(d) *Describe how writing is integrated into this lesson (writing process, writers' workshop, reader/writer response, modeling/authentic displays, purpose of the writing activity, kinds of sources used, evaluation of writing)*

(e) *Describe the materials/resources (e.g., fiction or nonfiction texts, textbooks, worksheets, overheads, smart boards, videos, any other technologies etc.) Describe range and levels of complexity of materials*

Describe supports offered (e.g., any ways instruction homework, or questioning was differentiated, modeling, other adults/resources/aids/assistants, centers)

(a) *Describe feedback and any ways student learning was assessed during this lesson (call on another student, probe, solicit others to assist, conference, multiple-choice test or quiz, written response—short answer, essay, other assessment)*

(b) *Describe the climate of the classroom (e.g., emotional support, teacher sensitivity, regard for student perspectives)*

(c) *Describe how the teacher managed behavior*

Part 3: DEBRIEFING (after class)

(1) What were your goals and objectives for this lesson? (if not stated explicitly during class)

(2) How did you plan this lesson?
  What kinds of materials were available to you?
  Who decided on materials that you could use?
  What information about your students did you use to inform this lesson?
  Did you plan in alone or in collaboration?
  What kind of support are you provided around lesson planning?

(3) What CCLS were you attempting to teach in this lesson?
  Describe any challenges you encountered teaching this lesson.
  What do you attribute those challenges to?

(4) How did this lesson fit into prior and future lessons?
  Please describe your planning process

(5) How did you assess students' learning during this class?

(6) Is there anything else about this lesson that you would like to share?

END