Productive Connections

Interventions in Low Performing Districts by the NCDPI District and School Transformation Division in 2011-12

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Executive Summary

Background

As one key component of North Carolina's 4-year, $400 million Race to the Top (RttT) grant activities, the District and School Transformation Division (DST) of the NC Department of Public Instruction (NCDPI) is intervening to improve student achievement and high school graduation rates in the lowest-achieving five percent of the state's high schools, middle schools, and elementary schools, some 118 schools in all. In addition, the DST is working with twelve of the lowest-achieving school districts in the state to strengthen their ability to lead and support effective school reform. As expressed in the current scope of work for the RttT grant, the goals of the initiative are these:

1. Turn around the lowest 5% of conventional elementary, middle, and high schools based on the 2009-10 Performance Composite and grade span,

2. Turn around conventional high schools with a 4-year cohort graduation rate below 60% in 2009-10 and either 2008-09 or 2007-08, and

3. Turn around the lowest-achieving districts with a 2009-10 Local Education Agency (LEA) performance Composite below 65%.

Three organizations—the Carolina Institute for Public Policy (UNC-Chapel Hill), the Friday Institute for Educational Innovation (NC State University), and SERVE (UNC-Greensboro)— have formed a consortium to evaluate the Race to the Top grant. The primary purpose of the evaluation is to provide objective research to help the NCDPI adjust RttT work as it progresses, a type of evaluation often labeled "formative" because it seeks mainly to help the client organization shape work in progress rather than simply to render an up-or-down "summative" judgment on its impact.

The present report is the second of four reports focusing on the work of the DST. The first examined the division's pre-Race to the Top interventions in low-achieving schools in an effort to distill lessons from that earlier work that could guide interventions during the Race to the Top grant period. In that study, we found that improvement had taken place through a process we called *scaffolded craftsmanship*. The scaffolding consisted of a planning framework, professional development, and coaching provided by the NCDPI and its partner organizations. With these supports, school leaders and staff gradually learned how to improve performance through guided reconstruction of key school functions rather than implementation of externally designed models. The present report shifts the focus from school-level interventions to the DST's district-level work in the twelve lowest-achieving school districts in the state. In this round of study, we found that in low-achieving districts, connections are weak or missing between and within levels of the systems—the central office, schools, and classrooms. The essence of what the DST is doing is to strengthen or create *productive connections* across and between levels of the systems. Before

explaining more fully what we mean by this term, we pause briefly to outline our methods and purpose.

Study Methods and Purpose

By conducting interviews with DST coaches and local educators in four districts that are at different points in the transformation process, supplemented by review of documents such as strategic plans and needs assessments, we sought to identify the essential elements of the district transformation process and to develop a rough "theory" of how that process takes place. That is, we attempted not only to describe the steps taken by the DST and local educators, but to highlight the essentials of that process, including the factors that impede as well as those which facilitate progress. By isolating the essential components of the process, we sought to develop a clear and concise account of the dynamics of district transformation. In this report, we offer a relatively detailed account of the process, but we also present a more theoretical account—a series of propositions or hypotheses that sum up the process in an economical way. This theoretical account is intended to help DST leaders and coaches grasp the essentials of the transformation process in a way that may be difficult in the midst of the very complex change process they are engaged in. It is, however, just a "first draft" of a theory that we will test and refine through additional study over the next two years.

Findings

The theory that we have derived from the interview and other data we collected in the four districts in our sample can be summarized in the following propositions:

- In low-achieving districts, a first challenge is to establish the improvement of student achievement and related student outcomes as the central goal of the school board and superintendent, not just as a broad policy, but in the continuing flow of specific decisions that arise over time. The proliferation of plans based on mandates or requirements imposed from many sources and the potentially conflicting claims of multiple community constituencies pose ongoing threats to the preservation of a dominant focus on student achievement.

- Further, in low-achieving districts, connections are missing or weakly developed at many junctures up and down the system. That is, many junctures across and within the levels of a district lack one or more of the elements of a *productive connection*. Productive connections include:

  1. the *combination* of assertive accountability and bonds of relational trust and engagement that fosters commitment to improve student achievement,

  2. the provision of guidance, instruction, and assistance that builds the knowledge and skills necessary to improve performance, and

  3. the ongoing support for and monitoring of good practice, assessment of outcomes, and use of assessment results to improve practice which assure that commitment, knowledge, and skills are actually put into practice to produce the desired outcomes.

- By "junctures" we mean the connections between superintendents and their boards; between superintendents and central office administrators; among central office administrators; between superintendents and central office administrators on the one hand and principals on

the other; among principals across schools; between principals and teachers within schools, among teachers within schools or departments; between principals and teachers on the one hand and parents on the other; and between teachers and students.

- The DST's district level interventions are essentially efforts to strengthen or create productive connections at all of these junctures, thus weaving a web of support for the improvement of student achievement.

- The elements of productive connections are similar across all of these junctures. In slightly different forms, they all involve (1) the combination of accountability and trusting relationships, (2) guidance, instruction, and assistance; and (3) monitoring practice, assessing outcomes, and using assessment results to improve practice.

- To carry out the latter two functions—(2) to guide, instruct, assist, and (3) to monitor and improve practice -- at any level of the system, leaders at each juncture need a clear, explicitly-defined concept of good practice. For example, a principal needs a well-defined image of good teaching as a basis for monitoring and shaping classroom instruction. Similarly, central administrators responsible for supervising principals need a well-defined image of good principal leadership.

- To improve practice over time, leaders at each juncture also need an effective assessment system and knowledge of how to use assessment results to make changes in the shared image of good practice and in actual practice.

- The more complete the web of productive connections in a district, the more student achievement will rise over time.

- Pockets of poor achievement—such as a low-performing school or department—indicate failures to complete the web of productive connections.

- A complete web of productive connections includes both links in the administrative chain of command between levels of the system and links among colleagues within levels of the system, the latter often referred to as professional communities. Absent productive professional links, productive administrative links will not be adequate to raise student achievement sharply.

- The key capacity of an individual at any level of the system is the capacity to make productive connections, both with the people s/he is responsible for leading and with colleagues.

- Professional development and coaching that are well-calibrated to the level of trust in the coach-client relationship and that attend to all elements of productive connections up and down the system can make strong contributions to the improvement of student achievement, but where connections remain weak after sustained intervention, personnel replacement is required.

In sum, "district transformation" is essentially the process of changing a disconnected district into a productively connected district.

Conclusion

It would be premature to make any summative judgment of the degree to which the District and School Transformation division has succeeded in transforming the districts where it is intervening, but it may be useful to offer an interim assessment of progress to date. In schools served by the DST, the two-year improvement in Performance Composites from the 2009-10 to the 2011-12 school year clearly outpaced the statewide average improvement—by 8.8 percentage points at the high school level, 4.7 points at the middle school level, and 7.1 points at the elementary school level. Further, the improvement in Performance Composites among schools where the DST was intervening at the district level in addition to the school level outpaced the improvement in schools where the DST was intervening solely at the school level—by 13.2 percentage points at the high school level, 3.5 points at the middle school level, and 2 points at the elementary school level. These findings suggest that the DST's school-level interventions are making a notable difference in performance improvement, and that the district-level interventions are adding additional value beyond the school-level interventions by themselves.

In addition to improving student achievement as measured by Performance Composites, the DST also set the goal of improving high school graduation rates. On this goal, the evidence is encouraging for DST interventions overall, but offers less support for a unique contribution for the district-level interventions. Statewide, from 2009-10 to 2011-12, high school graduation rates improved by 6.2 percentage points. In high schools served by the DST, the average two-year improvement was 9.5 percentage points—3.3 points more than in the state as a whole. This suggests that the DST has contributed to improvement in the graduation rate for the schools it served. But average graduation rates in high schools served solely through DST intervention at the school level actually improved 1.2 points more than did high schools where the DST was also intervening at the district level. The latter finding is not entirely surprising. The schools in districts where DST chose to intervene started with what amounts to a double disadvantage— they were low performing as schools but were also situated in low-performing districts. So it may take longer to make a difference in these schools than in those located outside of low-achieving districts.

All in all, it appears that the DST is making a measurable contribution to the improvement of both performance and graduation rates in the schools it serves. Our findings from two rounds of study suggest that the school-level improvements take place through a process of *scaffolded craftsmanship* and that the additional contributions of the district level interventions may result from making *productive connections* up and down the school systems, thus supporting scaffolded craftsmanship in the initially low-achieving schools in those districts. During the remaining two years of our evaluation of the Race to the Top-supported efforts of the District and School Transformation unit, we will examine these processes more fully in order to refine our findings and test their validity.

Introduction

As one key component of North Carolina's 4-year, $400 million Race to the Top (RttT) grant activities, the District and School Transformation Division (DST) of the NC Department of Public Instruction (NCDPI) is intervening to improve student achievement and high school graduation rates in the lowest-achieving five percent of the state's high schools, middle schools, and elementary schools, some 118 schools in all. In addition, the DST is working with twelve of the lowest-achieving school districts in the state to strengthen their ability to lead and support effective school reform. As expressed in the current scope of work for the RttT grant, the goals of the initiative are these:

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Three organizations—the Carolina Institute for Public Policy (UNC-Chapel Hill), the Friday Institute for Educational Innovation (NC State University), and SERVE (UNC-Greensboro)—have formed a consortium to evaluate the Race to the Top grant. The evaluation will offer an assessment of the impact of the RttT grant and its component initiatives, but its primary purpose is to provide objective research that can help the NCDPI adjust RttT work as it progresses, a type of evaluation often labeled "formative" because it seeks mainly to help the client organization shape work in progress rather than simply to render an up-or-down "summative" judgment on its impact.

Consistent with the overall purpose of the evaluation, our study of the DST's Race to the Top-supported work is designed primarily to generate insights about the dynamics of improvement in low-achieving school districts that can help the DST increase its effectiveness. As expressed in our original scope of work for the evaluation, our questions concerning the DST work included the following:

*   What problems are identified in the low-performing schools and districts?

*   What are the main intervention strategies that the District and School Transformation unit employs to improve low-performing schools?

*   What are the intended mechanisms of improvement?

*   How do the DST strategies work? That is, do the strategies and mechanisms play out as intended?

*   What is the impact of the DST intervention strategies on intermediate outcomes as well as student achievement and graduate rates:

    o   Impact on student achievement, graduation rates, and other school outcomes.

    o   Impact on enduring capacity and ability of school to sustain change.

During the first year of the overall RttT evaluation (2010-11), most of the several RttT initiatives were just gearing up. But with state funding, the District and School Transformation Division (and its predecessor, the School Turnaround Program) had been intervening in low-achieving schools since 2006. Rather than focusing on the schools where the DST was just beginning to work, we decided to take advantage of the DST's experience during the prior four years of interventions. For these, we could assess the impact of improvement efforts over the four years, select schools with different levels of improvement, and inquire into how some schools made major strides while others failed to do so.

This strategy enabled us to document the problems confronting low-performing schools as well as some of the DST's main intervention strategies, to begin tracing the ways that the intervention strategies played out over time, and to connect the intervention dynamics with their effects on student achievement in the schools (Thompson, Brown, Townsend, Henry, & Fortner, 2011). In turn, we anticipated, our account of the dynamics of improvement could help the DST refine and communicate its strategies going forward with Race to the Top support. So we could begin to make a formative contribution to RttT progress early in the implementation of the grant. During the RttT period, with federal encouragement, the NCDPI added a number of new elements to the effort to improve low-achieving schools, but professional development and coaching provided by the DST continue to play a central role, and with an assessment of the impact of professional development (PD) and coaching during the School Turnaround period (2006-2010) in hand, we would be in a position later to assess what additional contribution the new intervention elements made over the RttT grant period.

Our findings from this initial study of school turnaround also provided us with a way of focusing the present year's study of DST's Race to the Top-supported interventions at the district level. Our guiding hypothesis for the present study of district-level interventions was that districts' central office leadership affects student achievement mainly by supporting or impeding the kinds of school level dynamics we uncovered during the initial study. So next we offer a brief account of our findings on School Turnaround as a first step in explaining our approach to the current district level study.

On the first question above—concerning the problems confronting low-performing schools—local educators pointed to a complex of factors:

- Challenging economic and demographic conditions, whether newly developed or chronic

- Serious and widespread discipline problems

- Low academic demands and expectations among teachers and low aspirations among students

- High principal and teacher turnover

- A negative school identity in the minds of teachers, students, and the surrounding community

- Ineffective school leadership, ranging from harsh top-down leaders to leaders who were too eager to please and failed to enforce discipline or follow through on decisions

- Alienated teachers marking time in survival mode, isolated within their own classrooms

In the formerly low-performing schools that had made substantial headway in addressing these problems and significant improvement, the process generally began with the replacement of the principal and from a third to half the teaching staff. The initial personnel replacement was followed up by a sustained focus on student achievement, structured and supported by an NCDPI program of intervention that included a requirement that the schools submit plans consistent with an NCDPI-designed planning framework. This Framework for Action was designed to focus the schools on changing certain practices thought to affect student achievement, a series of professional development sessions to build the schools' capacity to develop and carry out the plans, and follow-up coaching and school-specific professional development. In instances of successful turnaround, the combination of framing and support from NCDPI and focused, energetic, and inventive work by principals and teachers brought about changes in key areas of school operation, including (1) the commitment, climate, and culture affecting student learning; (2) the knowledge and skills that school leaders, teachers, and other staff bring to their work; (3) the structures and processes that support instruction within the school; and (4) the strength of linkages between the school and both the district central office and the community served by the school.

We coined the term *scaffolded craftsmanship* to characterize the change process. The scaffolding consisted of the Framework for Action, professional development, and coaching provided by the NCDPI and its partner organizations. With these supports, school leaders and staff gradually learned how to improve performance by crafting improvements in the four key areas just mentioned. The heart of the improvement process was guided reconstruction of key school functions rather than implementation of externally designed models. Improvement came through a process of painstaking, piece-by-piece, craftsman-like reconstruction. Reconstruction did not proceed through a pre-specified, linear series of steps. Instead, external facilitators, school leaders, and teachers worked on one part, shifted their attention to another, recognized that there was a piece missing between the two and worked on that, circled back to rework the first piece so that it dovetailed better with the middle one, and so on until the pieces began to take shape and work together in a functioning whole. Figure 1 (following page) presents a schematic diagram of the change process in improved schools.

Figure 1: The School Turnaround Process
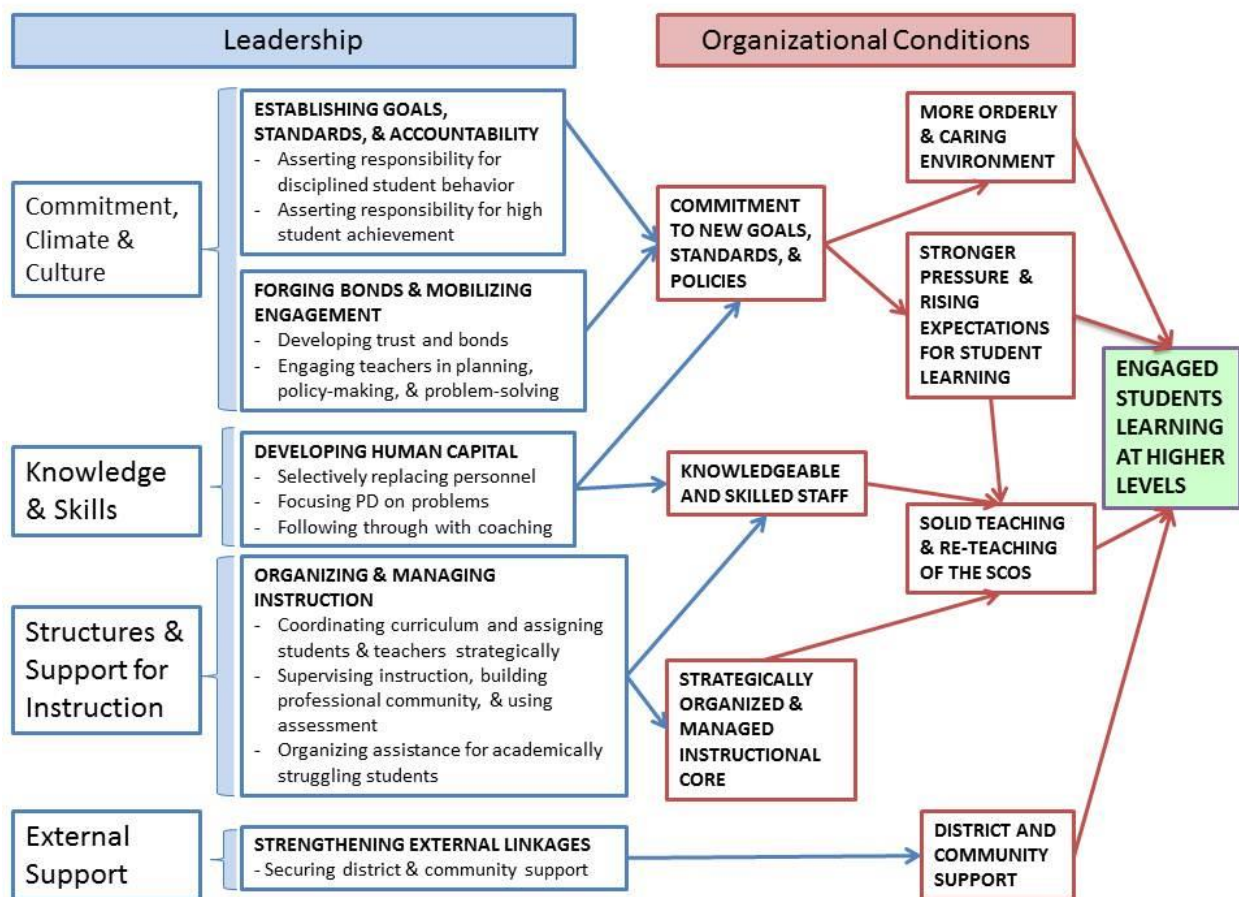
As Figure 1 suggests, with guidance from the DST, principals of improved schools mobilized new commitment to new goals, standards, and policies through a combination of (a) assertive accountability for more disciplined student behavior and higher student achievement, and (b) developing stronger bonds of relational trust and actively engaging teachers in school management. The new commitment led in turn to a more orderly and caring environment as well as pressure and support for students to meet the newly elevated demands and expectations for student learning. The leadership also strengthened human capital in the school by replacing alienated and low-performing teachers and, working closely with DST coaches, providing PD and coaching designed to improve instruction in areas of weakness. But strong commitment and a more knowledgeable staff were not sufficient in and of themselves. School leaders and DST coaches also put into place a set of structures and supports for instruction to ensure that the NC Standard Course of Study was taught carefully, with teachers and courses matched to students' strengths and needs, and that in professional learning communities, teachers used regular formative assessment to make ongoing improvements in instruction and to target extra assistance to academically struggling students. Finally, principals of improved schools worked to gain district as well as parent and community support for the elevated standards and the new priority on academic achievement. Throughout this process, local educators and DST coaches worked

together so closely that it was impossible to disentangle their separate roles. So we came to see the interaction of factors within the school with the DST interventions from outside the school as a single, complex process of improvement—hence the term, scaffolded craftsmanship.

In the "stuck schools" we studied—those that had made little or no progress despite assistance from the NCDPI and its partner organizations—attempts at reform were undermined by a proliferation of stop-and-start reform initiatives with no sustained follow-through, continued principal and teacher turnover, principals who were unable to mobilize teachers to enforce discipline and step up demands for academic achievement, and breakdowns in basic policies and procedures at both the district and school levels. Without sustained, competent, and authoritative leadership at both the district and school levels, these schools were unable to break out of the ingrained patterns producing low performance.

In the course of our study of DST's school level interventions, we were able to gain some insights into the role of school district leadership in turning around low performing schools. For example, it was clear that district leaders played a critical role in selecting and installing new principals who could collaborate actively with DST coaches to produce the improvement dynamic presented schematically in Figure 1. At times, assertive new principals aroused resistance from parents and community members. In these cases, district support enabled successful principals to stand firm in the face of resistance. Some district central offices were also helpful in recruiting and screening new teachers. But retracing and crystallizing the process of scaffolded craftsmanship within the turnaround schools themselves was an extremely complex and demanding task, and we were left with the sense that we had only glimpsed district dynamics out of the corner of our eye, as it were.

Thus, in this second year of our ongoing study, with the concurrence of DST leadership we focused squarely on the joint roles of district central office leadership and DST's interventions to strengthen district leadership in the process of improving low-performing schools. More specifically, we sought to understand whether and how district leaders, guided to some degree by DST coaches, affect the kinds of school-level improvement dynamics outlined above. As background for our findings, we describe the DST's program of district level intervention in the next section, and follow this with a brief account of the methods we used in studying the district level dynamics.

DST's Program of Intervention in Low Performing Districts

Having noted that it was difficult to intervene successfully in many low-achieving schools without a concomitant intervention in their district central offices, in 2008-09 the NCDPI's District and School Transformation division (DST) began working on a pilot basis with two districts that had large numbers of such schools, adding four more in 2009-10. Participation in these interventions was "voluntary" in the sense that districts had to welcome or at least to accept DST assistance. But in the spring of 2009 Judge Howard Manning, Jr.—the judge presiding over the state's long-running *Leandro* school finance suit—ordered the State Board of Education to assume direct oversight of the Halifax County Schools, the lowest-achieving district in the state, and the DST Division initiated a deeper and more intensive district-wide intervention there under the consent order. Plans to continue working in as many as sixteen districts were included in the state's successful Race to the Top proposal, but by the first year of the grant (2010-11), performance in four districts had improved to a point where district-wide intervention was no longer required, and the DST began Race to the Top-supported work in a total of twelve districts.

It is important to situate DST's district-level work—which is the focus of the present report − within the context of the NCDPI's broader program of Race to the Top-supported efforts to improve performance in low-achieving districts and schools. Consistent with the US Department of Education policies governing Race to the Top (RttT) grants, low-achieving schools in these districts have implemented one of the four USED models (Turnaround, Transformation, Restart, or Closure). The majority of schools chose Transformation and are implementing the following 12 components:

1. Determine whether the principal should be replaced;

2. Implement a new evaluation system;

3. Identify and reward staff who are increasing student outcomes; support and then remove those who are not;

4. Implement strategies to recruit, place, and retain staff;

5. Select and implement an instructional model based on student needs;

6. Provide job-embedded professional development designed to build capacity and support staff;

7. Ensure continuous use of data to inform and differentiate instruction;

8. Provide increased learning time;

9. Provide an ongoing mechanism for community and family engagement;

10. Partner to provide social-emotional and community-oriented services and supports;

11. Provide sufficient operating flexibility to implement reform; and

12. Ensure ongoing technical assistance.

DST provides school-level professional development and district, school, and classroom level coaching to help assure that all model components are addressed. When North Carolina's RttT

proposal was submitted several of the schools had already replaced their principals as part of NC Turnaround, and by the time the grant was implemented some of these schools had made sufficient progress—a 10-point gain in the school's Performance Composite—to assure DST that the principal was capable of leading a major change in the school. Since RttT grant activity began in 2010-11, the other eleven points have been addressed through a variety of specific targeted initiatives. For example, the NCDPI put in place a new NC Educator Evaluation System that includes the use of student achievement growth as a factor in teacher and principal evaluation, incentives to reward effective staff in low-achieving schools have been instituted, and procedures for terminating the employment of ineffective teachers who fail to improve even after professional development and coaching have been provided. Further, professional development on strategic recruitment, retention, and placement have been provided; three regional leadership academies have been established to prepare leaders for schools with challenging student populations; a recruitment incentive program and a new teacher support program have been initiated; efforts have been made to increase the number of Teach For America corps members serving in low-achieving LEAs; a new North Carolina Teacher Corps modeled on Teach For America has been established; and to increase learning time, the NC General Assembly increased the number of student days in an academic year from 180 to 185.

In the fall of 2011, then-DST DTC Team Lead Nancy Barbour noted that a substantial portion of 2010-11 was required to recruit, select, orient, and organize the large staff of coaches required to serve the state's 118 lowest-performing schools and 12 lowest-performing districts. Currently, almost 150 coaches and associated personnel are employed by the DST. According to Barbour, the scale and speed of the RttT gear-up ruled out a formal program of professional development for the coaches themselves, but monthly staff meetings provide occasions for orientation and ongoing discussions designed to promote common understanding of the coaching role.

Having outlined the overall program of RttT-supported interventions in low-achieving schools, let us now turn specifically to the DST's district level interventions. During 2010-11, the first year of the RttT grant period, the work that had begun with four districts prior to the receipt of RttT funds was brought to a successful conclusion, as all formerly low-achieving schools in these districts neared or reached RttT performance targets. Under the consent order from Judge Manning, DST continued district-level intervention in one district. The DST division also initiated work in eleven additional districts. In consultation with district superintendents and other top administrators, DST selected and assigned a full-time or nearly full-time District Transformation Coach to each of the 11 additional low-achieving districts. In addition, DST provided a set of School Transformation Coaches and Instructional Coaches, roughly proportional in number to the size of each new district. The coaches in each district report that they coordinate their work with each other, working as a team, but each type of coach is supervised separately by a DST administrator.

DST Director Dr. Pat Ashley described the twelve district-level interventions as "almost totally customized." There is no equivalent of the school-level Framework for Action. Instead of requiring that districts submit a plan keyed to such a Framework, Ashley elected to emphasize recruitment of experienced, "high quality people" as District Transformation Coaches and to give them the leeway to figure out what the district leadership needs to address and how to help address it. To be sure, the US Department of Education's reform models and DST's own school-level Framework for Action do provide some guidance on what coaches need to attend to, as do

DST's comprehensive needs assessments (CNAs) at both the district and individual school levels. The district CNAs provide an overview of the district's overall performance, what the district does well, and what it needs to improve, then report more specifically on instructional quality and alignment, leadership capacity at the district and school levels, professional capacity (staff at the district, school, and classroom levels), planning and operational effectiveness, and families and communities. In addition, each district submitted a scope of work for Race to the Top-supported activities, and each already had School Improvement Plans, Strategic Plans, and a variety of other plans required by Title I and other federal programs. Given this profusion of scopes, plans, and other guidance, DST leaders chose to refrain from requiring yet another one, allowing each District Transformation Coach to work out a verbal agreement on how to proceed with the process of transformation.

In the early going, Ashley and Barbour emphasized the importance of building relationships of trust with district and school personnel and establishing that coaches are there to assist, not to take control. Beyond this, Ashley noted, the most important thing is to persuade the superintendent and other central office staff to construe their role as supporting schools' improvement efforts rather than simply issuing directives. Other keys for the district-level interventions are (a) promoting the use of data to guide policy and practice, (b) strengthening "systems and processes" such as teacher and principal evaluation, benchmark and formative assessment, and personnel recruitment, selective retention, and professional development, (c) checking for and improving alignment between district and school level plans, and (d) assuring attention to teaching the NC Standard Course of Study while also preparing for the changeover to the new generation of curricular guidance, the Common Core State Standards and the new North Carolina Essential Standards.

With this background on DST's program of intervention in low-performing districts in place, we turn now to a brief description of the methods we used to study the transformation process in four selected districts.

Study Design and Methods

As indicated in the introduction, the present study is part of our ongoing effort to understand and document the main intervention strategies involved in DST's work to improve low-achieving schools and districts across the state, the intended mechanisms of improvement behind these strategies, how the strategies actually play out in practice, and with what results. In our previous study—focused on the School Turnaround Program during the years 2006-2010—we had the advantage of having the results of the effort in hand when we designed the study. Our analyses showed that on average, over the four years, the program had exerted a positive impact on the set of high schools where DST's predecessor unit had intervened, but that there had been wide variation in the degree of improvement across individual schools. In designing that study, we took advantage of the variation by selecting schools that had improved sharply, moderately, or very little and by attempting to account for the differences in progress by discovering what accounted for the differences—that is, by contrasting the factors and process of change in improved schools with the factors and processes that impeded improvement in the "stuck" schools.

In the prior study, we had found that improvements across a broad set of schools are not achieved immediately, but require sustained support over three or more years (Thompson, et al., 2011). In the case of the present study, the DST's interventions were generally not so far along as in the prior one, and an assessment of impact seemed premature. So we could not select districts on the basis of contrasting results. Instead, we chose four districts that differed sharply in size (from about 1800 students to over 30,000), in urbanicity-rurality (3 rural and small-town districts, 1 urban), region of the state (from the south-central, central, northeast, and eastern regions, thus ranging across the sections of the state where most low-achieving schools are located), and intensity of intervention (from the single most resource-intensive district intervention with more than 19 FTEs of coaching effort to one of the least intensive with about 4 FTEs). We made our selections in close consultation with DST Director Pat Ashley, who judged that the set of four districts would also allow us to study districts that were at different junctures on the route to improvement.

Having selected the districts for study, we developed a general interview protocol that would yield information on the degree to which and the ways in which DST coaches and district administrators were seeking to shape the school level dynamics that our prior study had revealed to be important to improvement. We took care, however, not to steer interviewees unduly toward these specific dynamics by asking about a broader range of topics, including (1) the priority goals, problems, and issues the DST and district were addressing and their general approach to doing so, (2) changes district governance, or the distribution of authority, including the school board as well as the district administration, how the changes took place, and any role that the DST may have played in making such changes, (3) significant changes personnel, ranging from the central office to principals and teachers, (4) efforts to strengthen accountability for student achievement as well as students' own motivation and academic effort, (5) efforts to make school environments more orderly and caring, (6) coordination of curriculum, supervision and improvement of instruction, and the use of assessment instruments and data, (7) communication with and efforts to engage parents and community in the schools and students' learning, (8)

professional development and coaching, and (9) any other significant efforts to improve the schools, with attention to impediments or obstacles to improvement as well as facilitating factors.

In each district, we interviewed DST coaches at all levels (district, school, and instructional) as well as key district administrators, and to get a sense of the connections between the central office and school levels, we interviewed a small number of principals in each district. In addition, we reviewed district-level strategic plans and Comprehensive Needs Assessments. We summarized the interviews and documents for each district in reports organized by the same categories used in the interview protocols, then distilled these into two-page summary tables that captured the essentials in each category in "nutshell" or telegraphic form. With the reports and summary tables in hand, we met to explore commonalities and contrasts across the four districts.

As mentioned above, the present study is essentially exploratory in nature, giving us a first comprehensive overview of DST-district interactions and the emerging dynamics of change in the districts. From our reflections on the cross-district comparisons and contrasts, however, it became clear that we could do more than simply describing district dynamics in terms of their connections with the school level dynamics revealed by our Year 1 study of Turnaround Schools. We could discern the general outline or "first draft" of a theory of the dynamics of district and school transformation. As the great Gestalt psychologist Kurt Lewin observed, "There is nothing so practical as a good theory" (Lewin, 1951). A theory is useful, Lewin argued, because it helps distill many diverse observations into a graspable whole, a pattern that helps us see the overall shape of the dynamic interconnections among the parts of a system rather than getting lost in the thicket of particulars.

We see Lewin's maxim as applicable to our work in two senses. First, if we communicate our theory clearly, DST officials and local educators can measure it against the realities of their day-to-day experience of transformation processes. To the extent that it is accurate, the theory becomes a useful guide to action in the confusing welter of details that local educators and coaches must contend with daily. "If you do this," the theory predicts, "then you also have to remember to do that. But if you do both together, this desirable change will probably occur." To the extent that the theory distorts or omits essential points, feedback from coaches and local educators can help us revise the theory in the direction of greater accuracy and completeness. The second sense in which Lewin's maxim applies is that we can also test this "first draft" theory in the third and fourth years of our examination of the DST-supported transformation processes. That is, we can use it to construct some "working hypotheses" to focus future study, then check those hypotheses against what we observe in districts and schools that do turn around successfully. So the product of this year's work (2011-12) becomes a link between our study of the Turnaround Schools program (2006-2010) and subsequent study of successful transformation efforts during the Race to the Top period (2010-2014).

Productive Connections: The Dynamics of DST Intervention and District Action

The essence of our working theory of district and school transformation can be summed up in a word: connections. Our initial study in four districts suggest that DST coaches and local educators are essentially trying to construct well-connected systems − systems that connect central administrators, principals, teachers, and students with each other and with the improvement of student achievement as a goal; connect policies and practices at all levels of the systems with that goal; connect principals with teachers through frequent classroom observation and feedback; connect teachers with each other through professional learning communities; and connect data on what students are actually learning back to principal and teacher evaluation and to classroom instruction in a process of continuous improvement. This effort to construct well-connected systems may seem obviously and eminently rational, but it contrasts sharply with the image of schools and school systems that emerged from organizational research in the 1970s and 80s. For example, Weick introduced his classic article "Educational Organizations as Loosely Coupled Systems" (Weick, 1976, p. 1) with the following metaphor:

Imagine that you're either the referee, coach, player, or spectator at an unconventional soccer match: the field for the game is round; there are several goals scattered haphazardly around the circular field; people can enter and leave the game whenever they want to; they can throw balls in whenever they want; they can say "that's my goal" whenever they want to, and for as many goals as they want to; the entire game takes place on a sloped field; and the game is played as if it makes sense. . . . [N]ow substitute in that example principals for referees, teachers for coaches, students for players, parents for spectators and schooling for soccer. . . .

In this image—admittedly exaggerated to highlight the loosely-connected nature of the education system − schools had a profusion of goals, most of which were vague and unmeasureable (e.g., "educating the whole child," "teaching each child to her full potential"), different principals and teachers espoused different goals, teachers taught what they liked or believed in teaching rather than any prescribed curriculum, principals had little real control over what went on behind the classroom door, policies and practices were adopted as much to impress parents and the public as to achieve real goals, irate parents might charge into the school but were soon mollified without changing anything fundamental in the school, and data were collected and reported but seldom acted upon. For at least two decades, organizational researchers remained fascinated by the notion of schools as "loosely coupled systems" and advanced a variety of notions to explain why and how they functioned—functioned in the sense that they survived and retained some measure of public confidence in the face of repeated attacks from various angles. Many schools were reasonably effective because their students came to school motivated and ready to learn, their teachers were well-educated and highly-motivated, and principals managed the schools as orderly, smoothly functioning environments. Schools serving students bringing fewer resources from home, with teachers who were less well-prepared and well-motivated and principals who managed less competently, produced substantially less learning, but in the absence of clear, well-measured goals, there was little real pressure for improvement.

Rowan and his colleagues have observed that the assessment-based accountability movement sharply changed the environment for public education, focusing schools on the central and clearly-measured goal of improving student achievement and placing special pressures on low-

achieving schools and districts (Rowan, Correnti, Miller, & Camburn, 2009). But, they argued, these pressures alone appeared inadequate to bring about major improvements in many such schools. Through a large scale study undertaken with a number of colleagues, Rowan found that many low-achieving elementary schools had improved substantially by adopting and implementing externally-designed Comprehensive School Reform models, an approach the researchers called "school improvement by design." Many low-achieving schools, they argued, could not develop effective ways of responding to the pressures on their own. They needed outside assistance to adopt and implement designs that had been carefully crafted and tested through systematic research and development.

In our study of the NC Turnaround Schools Program (2006-2010), spanning the high, middle, and elementary levels of schooling, we uncovered and detailed a distinctly different approach— scaffolded craftsmanship. In this approach, the NCDPI scaffolded the school transformation process with a planning framework, professional development, and extended coaching. Supported by this scaffold, principals and teachers were generally able to reconstruct key aspects of their schools and bring about substantial improvements in performance. Now, on the basis of the present study of whole districts, we theorize that efforts to transform low-achieving schools through scaffolded craftsmanship can be supported by establishing the several types of top-to-bottom connections across districts mentioned above. But our interviews with DST coaches and local educators trying to make such connections have also revealed that making each type of connection is fraught with difficulties. By bringing into clear focus the intended connections and the difficulties encountered in making them, we hope to strengthen DST's and local educators' ability to overcome the challenges and bring about widespread improvements.

Commitment, Climate, and Culture

In our retrospective study of the Turnaround Schools Program (Thompson, et al., 2011), we found that to bring about substantial improvement in a low-achieving school, it was essential for principals to hold teachers accountable for improving student achievement, but principals' assertion of accountability was not sufficient by itself to get teachers to set higher standards and expectations for students. In addition, effective turnaround principals built strong, trusting relationships with teachers by treating them as valued individuals rather than as mere cogs in the test score machine, by following through competently and faithfully on jointly made decisions, by evaluating teachers even-handedly rather than playing favorites, and by demonstrating a primary commitment to students' best interests rather than personal power plays or career advancement. Effective principals also engaged teachers actively in planning and problem-solving rather than handing down edicts from the top. The combination of strong accountability on the one hand and bonds of trust and engagement on the other seemed to engender what organizational sociologists call "organizational commitment." Organizational commitment on the part of teachers entails a sense of responsibility for helping the school achieve its goals, a willingness to expend extra effort to achieve the goals, a sense that being part of the school is an important part of their professional identity, a value on being well-regarded by their fellow teachers, and a corresponding willingness to be governed by the norms and values that characterize the school's culture. In other words, the combination of strong accountability pressures and strong relationships connected teachers to the goal of school transformation; teachers and principals came to share a common agenda for improvement.

For economy and ease of exposition, let us refer to a connection among people or across levels of a school district that combines both elements—accountability on the one hand and relationships plus engagement on the other—as a "productive connection." It seems logical to hypothesize that just as productive connections are necessary to mobilize school-wide commitment to the improvement of student achievement, they are equally necessary to mobilize similar commitment on a district-wide basis. But across a whole district, the number and complexity of productive connections is vastly greater than within a single school. We propose that mobilizing district-wide commitment to improve student achievement entails developing a complex web of such productive connections. With significant variations in the particulars, these include connections between or among (1) the superintendent and the school board, (2) the superintendent and other top central office administrators, (3) individual district administrators and their central office colleagues, (4) the superintendent and top central office administrators on the one hand and the principals of schools across the district on the other, (5) the principal and teachers within each school, (6) individual teachers and their fellow teachers within schools, and (7) perhaps most important, principals and teachers on the one hand and parents and students on the other. Nor is the web of important connections exhausted by this list; other connections may also prove important. For example, teachers may not interact directly with the superintendent or school board, but teachers' perceptions of the people at the top—for example, perceptions that they either are or are not genuinely concerned about student learning or teachers' morale—may strongly influence the degree to which teachers commit themselves to the hard work of improving student achievement and school performance.

Our interviews in four of the twelve districts where the DST is intervening indicate that mobilizing district-wide commitment to the goal of sharply improved student achievement by constructing such a network of productive connections entails overcoming challenges at virtually every juncture, beginning with establishment of the goal at the top of the system and extending across numerous links to the classroom level. In the balance of this section, we describe several of these challenges and the efforts of local educators and DST coaches to address them.

Bringing Coherence to Proliferating Plans

One obvious device for focusing and framing organizational action is creation of a plan and frequent reference to it throughout its implementation. At the individual school level, the NCDPI's School Turnaround Program (2006-2010) required low-achieving schools in the program to submit and then implement plans consistent with a 9-point Framework for Action. The Framework was designed to focus schools on a set of core functions and processes believed to affect student learning outcomes. At the high school level, for example, the Framework focused attention mainly on the transition from middle to high school, formative assessment, help for struggling students, literacy issues and needs, linking professional development to needs revealed by student achievement data, reviewing school policies and procedures to ensure that they support student learning, engaging parents and the community to address school needs, establishing professional learning communities. One district official told us, "Without that Framework, I don't think [name of principal] would have known what to focus on." School coaches as well as other district officials, principals, and teachers expressed similar views, and more than one coach recalled frequently re-focusing local educators by telling them, "You're getting away from your plan" (Thompson, et al. 2011).

As indicated earlier, for its school level work in the Race to the Top era, the DST has adopted the US Department of Education's broader 12-point program of action. But there is no single planning framework for the DST's district-level interventions. Instead, DST Director Pat Ashley characterized the DST's assistance as "almost totally customized." Not only were districts seen as too different from each other for a single planning framework to be workable, but as then-DST Assistant Director Nancy Barbour explained, districts' focus was already diffused by a proliferation of plans. They had district strategic plans, Title I plans, school improvement plans, Race to the Top scopes of work, and a variety of other special-purpose plans. Rather than asking districts to create yet another plan, Barbour said, the DST leadership decided to have District Transformation Coaches work with district officials to develop an informal agreement ("transformation plan") on how to bring coherence to the district's overall approach to transformation. Ashley gave a complementary explanation: "We put quality people in [the District Transformation Coach role] instead of a plan." Ashley's premise was that coaches with successful leadership experience in similar districts could bring coherent focus to district-wide action in a manner consistent with local circumstances and preferences.

In response to questions about their goals, central administrators in each of the four districts we studied crisply stated three main goals. Unsurprisingly, an emphasis on improving student achievement or processes closely linked to student achievement (curriculum, instruction, and assessment) topped the list in all four cases. Variations in the second goal reflected particular local circumstances and pressures—a failed financial audit in one case, a need for strengthened accountability in another, central office and school leadership in a third district. On the third goal, all four districts expressed concern to improve parent and community engagement, but significantly different motivations underlay the goal commonality. One district was losing enrollment to charter or private schools and sought to win back the lost students. Another had seen an important tax increase for education go down to defeat and was eager to increase support in advance of a new vote. In a third, newly elevated academic expectations had led to lower grades for students, triggering complaints from students and protests from their parents. A fourth simply saw parent support as essential to improving student achievement.

The Comprehensive Needs Assessments (CNAs) led by DST staff and other agency personnel appeared to compensate to some degree for the lack of a unified Framework for Action plan. During the Turnaround School period (2006-2010), the CNAs were often completed too late to have much impact, but during the present Race to the Top era, CNAs were generally completed earlier in the process, and in the present study District Transformation Coaches and district officials referred to them more frequently. Referring to observations or critiques put forward in the CNAs seemed to represent a relatively neutral way to prod people to action and keep them on course. Helpful as the CNAs appear to have been, reliance on an "almost totally customized" approach to district transformation seems to place a greater burden on individual coaches to give form and direction to the DST interventions. The flexibility for coaches to adapt to local circumstances and preferences offered by a customized approach may outweigh the lack of a single planning framework. In any event, all four districts had produced detailed strategic plans to address the goals, complete with action steps, assignment of responsibilities, and deadlines. In the three districts where district-level work was initiated in the Race to the Top era, coaches were continuing to work with district administrators to reconcile and unify the various plans. In the fourth district, where the DST has been working for several years, district officials and DST coaches seemed to share a clear understanding of where they are going and how they plan to get

there. In other words, with DST's help, districts seemed to have overcome the challenge of reconciling proliferating plans. Lack of a focused, clear plan did not seem to be the main problem for the districts. But the variety of challenges districts faced in implementing the plans were daunting.

Getting the Board on Board

One such challenge was persuading local school boards to make the improvement of student achievement their top priority not only in their policies and public pronouncements but also in the ongoing flow of decisions on specific issues that came before them. In the three small rural districts in our sample, one change this has entailed is a profound shift concerning personnel matters. Across all three, several interviewees—from the ranks of both district administrators and DST coaches—painted strikingly similar pictures of communities characterized by dense networks of friendship, family relationships, and church membership. The school district is among the largest employers and the few sources of steady, well-paid work in these communities. In the past, many Board members have involved themselves directly in hiring, tenure, and promotion decisions, giving personal relationships and loyalties precedence over objective judgments based on the qualifications of job applicants or the performance of teachers, principals, and other staff employed in the district. This undermined the goal of improving student achievement in several ways. Not only were the most qualified and competent applicants often passed over in hiring, but mediocre or poor performance by those with good political connections was often overlooked or even rewarded through advancement, establishing a widespread, dispiriting perception that the hard work of improving student achievement was a thankless task. In cases where principals did give poor performers low evaluations or even attempted to terminate their employment, the principals would often find themselves in trouble with the low performer's patrons on the Board.

One superintendent spoke with unusual candor and clarity about the challenge of getting his Board on board and how he has tried to meet the challenge. He reported "working with my Board through the course of the [first] year to educate them . . . about my observations and how we can make a difference long term by making moves X, Y, and Z." Speaking of Judge Howard Manning, Jr., the judge in the *Leandro* school finance case who has put powerful pressure on the NCDPI and local educators to improve low-achieving schools, the Superintendent said, "I used Manning as leverage to say, '[X district] is down the road, the DPI has been ordered to go in and take over there, and we don't want to be [in the same situation]." So [on personnel decisions requiring Board approval] what I try to do is walk the Board through a sequence of here's what has happened, here are the facts, here are the data and information to back it up, here's your policy, and then based on this evidence and documentation, here's why . . . I am making this recommendation." His approach was basically to substitute explicit and rational policies and factual information for personality-based political decisions: to re-emphasize here's the policy, here's the general statute, here's the data and performance on this teacher, here are the evaluations, and these are all—I tried to build leverage, get myself in a position where I've got leverage to get support for the decision."

In another district, at the Superintendent's invitation, the District Transformation Coach (DTC) made a presentation to the School Board stating forthrightly why the Department of Public Instruction had targeted the district for intervention − the high percentage of persistently low

achieving schools in the district—and what some of the problems were that appeared to account for the low performance. According to the DTC, the Superintendent advised him to be "brutally honest," advice which the DTC appears to have taken to heart. Problems cited in the DTC's PowerPoint presentation included mistrust among the leadership team (see below), leadership not holding teachers accountable for effective instruction, poor implementation of the new teacher evaluation model, the large number of ineffective teachers across the district, and poor implementation of instructional practices taught through the district's program of professional development. With the School Board as well as in his work with system administrators, the DTC explained, one of his goals has been to create "constructive dissonance" and a sense of urgency about reform.

In still another district, three newly-elected board members had run on a promise to re-open two schools that had been closed due to declining enrollments. Key district administrators worried that reopening the two closed schools would not only be inefficient economically, but also that the turmoil entailed in reassigning students and teachers would disrupt emerging improvements in the schools as they were configured after the closings. To this point, they seem to have managed to maintain the focus on improving student achievement within the new configuration. District officials also reported that now, when constituents come to Board members with problems, Board members routinely direct them to the appropriate person in the "chain of command" rather than intervening themselves—a major change from prior practice. This was the district where Judge Manning had imposed a consent order assigning the NCDPI broad authority to make policy and supervise practice, but instead of a full unilateral takeover, the agency negotiated more of a partnership with the district. Dr. Pat Ashley, Director of the NCDPI's District and School Transformation division routinely attends school board meetings, and the Chair of the State Board of Education does so periodically, which may have helped establish the new patterns of communication.

Researchers have long noted the ways in which US traditions of localism and democratic governance lead to "policy fragmentation," with many distinct constituencies pulling district and school administrators in different directions simultaneously and making it difficult to establish a focus on any single goal, including student achievement (Cohen & Spillane, 1992). As our interviews show, the tendency to fragmentation—including the proliferation of plans developed in response to separate mandates as well as constituent advocacy of goals that would distract attention and resources from efforts to improve student achievement – is a real one in low-achieving districts and threatens efforts to mobilize support for district transformation. But superintendents and District Transformation Coaches seem to be making headway in bringing the Boards on board in support of coordinated efforts to improve student achievement.

Overcoming Mistrust at the Top

Another threat to district-wide commitment to improving student achievement as a shared, pre-eminent goal was articulated clearly by the District Transformation Coach in one of the small rural districts in our sample. He described a situation of semi-paralysis in the district's leadership team, in which members hesitated to take action out of a fear of making mistakes. The Superintendent ". . . has a theory of action: what plus why plus how equals results. 'I'll give you the what and the why, and the how is up to you.'" But according to the DTC, when a team member makes a mistake, instead of sitting down with the person to discuss what went wrong

and how the person might put things right, the Superintendent steps in to handle the problem himself, thus taking back authority over "the how box" and undermining his colleagues' confidence and opportunities to develop new competence. "I have to tell [him] all the time, 'You're in the wrong box,'" said the District Transformation Coach. Taking back authority when mistakes occur, sometimes accompanied by sharp-edged criticism, he explained, makes leadership team members reluctant to take the initiative to move the reform agenda forward. Rather than risking error and chastisement, they avoid taking responsibility and taking action. He reported that the same dynamic prevails in meetings of the leadership "cabinet," where leadership team members are similarly hesitant to volunteer an opinion or make an argument for some course of action, instead waiting warily for the Superintendent to express his view, then falling into line with that view. There is virtually never open conflict among members of the team or dissent from the Superintendent's view, the DTC noted.

Asked to spell out how this dynamic affects the district transformation process, the DTC invoked Patrick Lencioni's *The Five Dysfunctions of a Team* (Lencioni, 2002). According to Lencioni, an absence of trust among team members discourages open exploration of goals and strategies in favor of artificial harmony. Since team members do not trust each other, they fear to risk conflict by expressing their own real values and views. Hence, they never work through the buried conflict to a genuine resolution that all can support genuinely and energetically. Rather than shared commitment to common goals and an agreed-upon plan of action, pretended public agreement prevails while team members continue to pursue their own self-protection below the surface. Nor are team members willing to call others to account—to point out how someone may be dropping the ball. They fear that rather than triggering a constructive joint problem-solving session, criticizing others' actions (or inaction) may simply provoke retributive criticism, which is too high a risk to run in a low-trust environment. Self-protection takes precedence over advancing the common goal by pointing out and then working to solve the problems that impede progress.

The district in question has a clear set of goals and a well-conceived long term plan for improvement through systematic professional development, but early in the DST's intervention, mistrust near the top appeared to be undermining initiative-taking in support of the plan by top district administrators. Yet the District Transformation Coach was encouraged by the Superintendent's readiness to recognize that he might find more constructive ways to intervene in "the how box."

Controlling Turnover and Integrating New Leadership

Particularly in the largest of the four districts we studied, interviewees reported that turnover at all levels of the system is making it difficult to develop momentum toward improved achievement. The turnover took different forms at different levels of the system. At the central office level, the new Superintendent had brought in several colleagues from his former district to fill key positions. Several interviewees reported that this had led to a widespread impression that there are two distinct "teams" of administrators operating in the district, one composed of people with long experience in the district and the other, of newcomers from the Superintendent's former district. In addition, reorganization of some departments has put people together in unfamiliar combinations: "We merged instructional services and our assessment team into one. And as a result of that, the current team is about 90% new staff, either new to [the district] or

new to central office." As a consequence, DST coaches noted, many principals seem to be waiting to see how the authority structure will settle out before moving very decisively in any direction.

This presumably temporary, transitional situation was compounded by continuing turnover among principals, assistant principals, and teachers. DST coaches in the district reiterated what we had found in our earlier school level study: the pressures on low performing schools make it difficult for the district to recruit and retain good people in school leadership and teaching positions. Further, the high turnover rates and consequent heavy demands on the district's Human Resources department tend to create delays in filling vacated positions. The combination of leadership transition and reorganization at the top of the district with continued turnover at the school level appears to be making it difficult for productive connections to form across and within levels of the system, and without such connections—without social cohesion and an accompanying esprit de corps—it is proving difficult to mobilize commitment to shared goals and practices.

District officials seem keenly aware of the problem and report efforts to increase support for principals, whom they regard as pivotal to stabilizing the workforce and improving student achievement. Steps to increase support include reorganization to create area Superintendent positions as well as arrangements to facilitate more collegial interaction among principals—a professional learning community for principals paralleling those for teachers—along with the support provided by School Coaches by the DST. But at the time of our interviews, it was not clear whether these steps had begun to stem the tide of turnover and permit the emergence of greater social cohesion across the district. This district's turnover problems were not unique. In one of the three small rural districts in our sample, DST Instructional Coaches reported that their careful work with individual teachers is often eroded by turnover. Just as they begin to make progress with some teachers, the teachers grow weary of the stresses of change and retire or move on.

Setting a Manageable Pace

Two common themes across the four districts we studied were the need to create a sense of urgency about improving student achievement and the corresponding need to bring about major changes quickly. Few would dispute the need for greater urgency about the improvement of low-achieving schools, yet as events in one district demonstrate, moving with too much urgency and speed risks overloading the system so severely that little real change occurs. Speaking of the situation in the district where she was working, one DST Instructional Coach explained, "Teachers are completely overwhelmed. I mean teachers will come to me . . . and they'll say, "I know I sat in the staff development, but I don't understand any of [the instructional strategies] well, so which one do I do? Because they don't want to be in trouble for not doing something. So I try to help them with one particular thing. I would rather they would do one [instructional strategy] right than worry about all four and not do any of them very well."

"They're overloading everybody from the top down," the District Transformation Coach added. "I think it's all three levels . . . cabinet, principals, and teachers. And as a result, a couple of things are happening. Number one, they're trying to guess what's going to be monitored this week so I make sure I've got that done. Number two is . . . what is it that I really need to do now

because I've got more here than I can do. We're reacting to what's most pressing at that time at every level, and I think that's even at [the superintendent's] level." Asked how he would recommend responding to this situation of overload, the District Transformation Coach argued that the coaches must help people up and down the system impose some order on the chaos of proliferating demands by breaking the change process down into a series of cycles: establish some priority actions, train people carefully in those, encourage their supervisors to hold them accountable for implementing what has been taught, and when they have mastered one practice, repeat the cycle. Lacking such a stepwise and cyclical process carried out at a manageable pace, he observed, people conceal their panicky sense of helplessness by pretending to understand and implementing some partial and confused version of what they have been taught through professional development. Like the leadership team in the scenario of mistrust described above, they feign cooperation, but anxious self-protection takes the place of genuine commitment to improved student achievement. At the time of our interviews, coaches in the district were working to persuade district leaders to calibrate their demands for change more realistically while also trying to help principals and teachers set their own priorities and cope in an overloaded environment.

Balancing Accountability with Bonds and Engagement

In one of the districts we studied, the strategic plan places schools in one of three "tiers" of autonomy and assistance. The district accords the highest-achieving schools broad autonomy and little assistance from the central office, but deals much more prescriptively and provides greater assistance to the lowest-achieving schools. Such a tiered strategy for allocating autonomy and assistance has been used with some success in other large districts, including Chicago and New York City's District #2 (Thompson, Sykes, & Skrla, 2008). Our earlier school level study indicated that tough accountability can lead to productive connections when it is paired with strong efforts at relationship-building and engagement of those who are held accountable as partners in the effort to improve student achievement. From our interviews in the present study, it was not always clear whether the assistance to low-achieving schools includes sufficient attention to relationship-building and engagement to offset the intense accountability pressures on the lowest-achieving schools, but in this district a DST coach expressed concern on this count: "They [district administrators] are not facilitators of change. [Principals] are very much struggling with having a district that is very controlling with regards to 'You will do this. You will implement that. At ten fifteen on Tuesday you will do this.' So they have been bucking it, and now the area superintendent . . . has the strongest personality [of several district level administrators all of whom have strong personalities]."

Across two of the three other districts in our study, district officials and DST coaches had also adopted a strategy of allocating much greater attention and support to the lowest-achieving schools, albeit without a formal system of "tiers." The accountability-relationship balance was also an issue in these districts, but in some cases the balance was tipped toward relationships at the expense of accountability. For example, at one school, after extensive discussion with the School Transformation Coach, the principal agreed that his assistant principals needed to focus far more on instruction and less on routine administrative duties. "Then we got in the meeting with the APs to do the training [on what to look for in classroom observations]. Okay, so I'm going over what the time frame is going to look like. One of the APs said, 'Well, I don't have the time.' The principal said, 'I know. We are just going to do what we can, and we're going to talk

about that.'" The School Transformation Coach was shocked at this quick retreat from the agreement she had struck with the principal, but noted that it was consistent with the principal's larger reluctance to assert his authority when push came to shove. In a later interview, the Superintendent showed his own awareness of the problem: "I really need a [tougher guy] there."

In some cases, teachers also resisted principals' assertion of authority, sometimes in striking ways. "They can hold you hostage," one District Transformation Coach told us. Asked to explain, she said, "The medical leave is the easiest way to do it. You go to the right doctor and say, 'I'm under stress. I'm feeling pressure. I can't come to work.'" The calculation, the DTC explained, was that "He'll back off if I stay out because he knows I'm teaching in a tested area," untaught or poorly taught students will score badly on End-of-Course tests, and the principal himself will be seen as ineffective. She went on to tell the story of one teacher who, when pressed to improve her students' performance, stayed out for a prolonged period. "The principal was stressed, and he said, 'What am I going to do? What am I going to do?' I said, 'We're going to move those kids.' So I sat down with him and . . . one of the assistant principals, and we started placing them. . . . it meant that we were having to do some adjusting with some of their other classes, . . . and it was [an extra burden] on the other teacher [who took the additional students into her class]. She deserved to be paid extra and ended up staying after school working with kids that weren't originally hers. Did it pay off? Yeah!" The two coaches explained that in situations of this sort, even competent principals can freeze up: "I have to say; we'll stay calm about it and fix it."

After taking these steps and conferring further with the District Transformation Coach, the principal informed the teacher that when she did return, she would have a new and less desirable position in the school. Winding up the story, the DTC said, "It is very difficult to assist someone who is not even in the building. Some of those people end up writing their own ticket to a resignation, and they end up leaving . . . because you can't do anything with them. What we've had to do is to start talking to teachers about accountability and how if they're absent 10 days, 20 days . . . the impact it has on the children. It doesn't faze some people, and others say, 'You're right. I am responsible for it.'"

The difficulty of building relationships and engaging teachers that span the levels between top district administrators and teachers is illustrated by developments in a small district that tried to involve teachers in "unpacking" the Common Core State Standards and the new NC Essential Standards for subjects outside the Common Core. The apparent purpose of the effort was to engage teachers in examining and producing a detailed map of the new generation of learning objectives. "This district is really big on building documents and a plan. [For example] . . . they're having to complete a certain form, but this is now the third form that they've used to start unpacking. . . . And that takes up a tremendous amount of time. Teachers will spend hours after school working on what's been mandated by the district and then be told, 'You're doing this wrong,' and they have to do it again. So they cut and paste the same information into three different forms. I just think that if [top district administrators] were more involved with teachers . . . in decision making, things would go better." Because of the stop-and-start efforts that sometimes occur when local educators are feeling their way along and working out approaches in response to changing signals from outside the district, what central office administrators intended as teacher involvement in developing a curriculum roadmap had the effect of frustrating teachers rather than mobilizing commitment. It appears that even in small

districts, the distance between central office intent and the messages received at the school level can undermine the best-intentioned strategies.

Thus, as we have seen, establishing the web of productive connections required to marshal district-wide commitment to the goal of improving student achievement and a plan for doing so is fraught with challenges at every nexus in the web. In three of the four districts we studied, this process of rallying broad support is in its early stages. In the fourth, where the DST has been working under a consent order since 2008-09, both district officials and DST coaches report encouraging progress in gaining buy-in, particularly at the high school level. According to Instructional Coaches, the tide turned when teachers and students began to see positive results from their efforts. The coaches' reports echo a finding from our earlier study of the Turnaround Schools program (2006-2010): initial successes encourage and energize teachers and students (Thompson, et al., 2011). But in the lowest-achieving districts, even small initial success is hard-won, and the level of change that the DST seeks—"transformation" rather than modest improvement—appears to take years, not months.

Difficult as it is, mobilizing commitment to change is only one phase of the transformation process. We turn in the next section to a second aspect of the process, developing human capital—the knowledge and skills required to make enhanced commitment pay off in better results.

Knowledge and Skills: Developing Human Capital

There are at least two broad approaches to improving the knowledge and skills of a school's or district's workforce: (1) replace less effective administrators and teachers with more effective people, and (2) build up the knowledge and skills of the people already in place through a combination of professional development and coaching. In our earlier study of Turnaround Schools, we found that in every school that had improved sharply over the four years, the turnaround process began soon after the principal had been replaced. Similarly, in nearly all of the sharply improved schools, from about one third to one half of the teaching staff were replaced, and in the one exception, the entire school was vacated and a new complement of teachers were hired from scratch (Thompson, et al., 2011). Of course, principal and teacher replacement is no guarantee of improvement. The years before real improvement began in these schools had seen a steady stream of principals and teachers coming and going, with hope rising and then falling on the rollercoaster of turnover. Professional development, coaching, and the implementation of several types of support for instruction appeared necessary to stabilize the schools sufficiently to permit a principal and refreshed teaching staff to take hold and for improvement to begin. Without such stabilization, "personnel replacement" is just another term for turnover.

In the present study, district administrators and DST coaches were pursuing both approaches—personnel replacement and professional development followed up with coaching. In the sections below, we first describe these efforts and some of the challenges encountered in carrying them out. We then pause to offer some reflections on what the experiences of the districts imply for our theory of "productive connections," and we conclude the discussion of developing human capital with some additional observations on the nature of coaching and the mechanisms of improvement it implies.

Personnel Replacement

The clearest illustration of an aggressive personnel replacement initiative came from the relatively new Superintendent of one of the small rural districts. The superintendent's account of his strategy for change began like this: "You know as a superintendent who your weakest players are, and up front, the first thing that I had to assess quickly knowing that X High School was a Manning school. . . . I knew that I had to quickly get a gauge of where that school was in terms of teacher performance, what kind of leadership was there, and it took about 30 seconds to realize that the principal was [not performing up to par], and she is married to someone who is on the board who then became a county commissioner, he's a county commissioner now. Thirty-five years, her husband was best friends with my board chair." By "Manning school," the Superintendent meant that the school had been singled out for special attention and criticism by Judge Howard Manning, Jr., the judge in the state's long-running *Leandro* school finance case.

Within a week of being hired, the Superintendent took the initiative to meet with Judge Manning. Having gone so far as to accuse one large urban district of "academic genocide" and having excoriated many principals in colorful terms during face-to-face meetings, Judge Manning had a reputation for fierce criticism of local educators in low-achieving schools and districts. So taking the step of seeking Manning out in his Wake County Courthouse office took unusual confidence

and nerve. The Superintendent told Manning that the high school's performance was completely unacceptable and that he planned to replace the principal and take other steps toward immediate improvement there. Despite the local political perils of doing so, he did make the personnel change swiftly. Concerning the new principal, the Superintendent said, "He's very student-focused in his decisions, but he holds a hard line with the adults, which is what we need. He's my most effective principal by far." In all, the Superintendent replaced the principals at four out of the five schools in the district. "These five people are the most important people in the district," he explained. Of the four new principals, three were doing well in the Superintendent's estimation. The fourth was "a little overwhelmed" and was having trouble balancing the preservation of good relationships with APs and teachers with holding them accountable for more strenuous efforts to improve instruction.

A second phase after replacing the principals was to "strengthen the support staff," as the Superintendent referred to key central office administrators. By way of explanation, he said, "To me, our role is to support the school and not be the bosses. He made changes in the areas of testing and accountability, human resources, curriculum and instruction, and technology. "You've just had managers here, not people who really knew instruction," he explained, adding that one assistant superintendent had been employed by the district for 49 years. Asked how he was able to recruit his impressive new "support staff," the Superintendent explained that he emphasized the opportunities for rapid advancement open to administrators who successfully turn around low-achieving schools and districts along with the opportunities to make a significant difference in the lives of young people in the county. These fit with his account of why he, himself had come to the county: after "finishing second" in his pursuit of the superintendency in two larger districts, he had concluded that the straightest route to his goal ran through a smaller district. He simply applied the same logic in appealing to prospective members of his central office team.

The third phase of his strategy consisted of working with the new Director of Human Resources to establish a well-structured, well-documented personnel evaluation system, clarifying job descriptions and expectations as well as when and how evaluations are to be done, and "absolute follow-through with administrators to make sure they're hitting all of their checkpoints and building those files." The DST's Comprehensive Needs Assessment for the district had pointed out the considerable disarray in personnel files. When the Superintendent and Director of Human Resources reviewed the files for themselves, they were shocked to find that many teachers had either never been evaluated or their evaluations were never documented, some had been tenured at a point when they had not yet earned tenure, and some had no employment contract at all.

Repair of the district's personnel evaluation system was an essential step toward review of all personnel, certified and uncertified. The new Director of Human Resources reported that she focused first on instituting new "processes and sometimes policies—basic things that should have been in place but were not," such as documentation that teachers meet the "highly qualified" provisions of NCLB," a plan for mentoring new teachers, background and reference checks, annual evaluation with documentation, and ensuring that principals enter observation results on a weekly basis, with at least fifteen classroom walkthroughs per week.

Over a three year period, three rounds of review led to some 90 recommendations to terminate the employment ("non-renew") of people up and down the system—about 25% of the entire

district workforce. Asked what prompted him to replace teachers, the Superintendent emphasized poor student learning outcomes, but problems in relating to students, as well: "[teachers who have] negative dispositions, don't form relationships with students in a positive manner, or carry themselves like positive role models." Of the 90 recommendations for "non-renewal," the school board approved 89. This was the same Superintendent described in the section above on "keeping the Board on board." As noted there, he built his case for each decision carefully, first reminding the Board of the relevant statutes and of their own policy, then presenting documentation that the recommended decision was the only one compatible with statute and policy.

Of course, terminating the employment of a teacher is only the first step in replacement, and may not be the most difficult. Like other small rural counties with limited housing stock, few cultural amenities, and low local salary supplements, the district had generally faced an uphill battle in attracting good applicants for teaching jobs. One new source of talented applicants has been the Teach For America program, which serves the area where the district is located. The district employed six TFA corps members in 2011-12, and the Superintendent hoped to "double or triple" that number in the next few years. But the recruitment effort mounted by the Superintendent and his new Director of Human Resources was much broader in scope. The Director of Human Resources identified the 50 best schools of education and the best HBCUs across the country and sent advertisements to them as well as posting new online advertisements of openings. An especially useful recruiting tool was the federal student loan forgiveness program, which provides that if a teacher teaches for five of her first eight years in a high needs school; her student loans are forgiven entirely. She screens all applications and forwards the best to principals with appropriate open positions, together with a strengthened interview guide for the principal's use. Job finalists are required to conduct demonstration lessons in person or via video. Asked whether she is able to attract candidates in sufficient numbers and of sufficient quality to hire selectively, she observed that "Michigan laid off 8,000 teachers recently. Here in X County, we have jobs to offer."

The district discussed above was not unique in strengthening its Human Resource systems and using a vigorous personnel replacement effort to improve the knowledge, skills, and vitality of its workforce. In the district where the DST had been working since 2008-09 under a consent order from Judge Manning, the District Transformation Coach recalled working with central office administrators to put a hiring process in place, addressing an exhaustive series of questions:

> Some very basic things that you would expect to already be in place in a functioning district were missing. Who's going to be on your committee? How do you determine who's going to be on the committee and do that interview? Once we got a process in place, you know, how do you recruit? What does that look like? You can't just put out an advertisement and expect people to apply. How do you really actively recruit? How do you support new teachers? What does that look like? . . . Once you recruit teachers, what is going to be your process so that you can retain those good teachers? What is your process for principals when they have a teacher who's not effective? What's the process that they need to go through to get that teacher out and get someone in who will be effective with the kids?

> . . . we've gone through phases of this. The first year, it was just a basic process. If you're going to interview, if you're going to put out an advertisement, what should that look like? What should be included in it? Once you get the applications in, you don't have to interview all twenty applicants that turn in an application. How do you screen through those? Some very basic processes like that. And now that they are moving along . . . we have those smaller pieces in place. Now you have to look at, okay, now you have timelines and deadlines that you have to meet. When do you send out Intent Forms for folks to fill out to say if they're coming back or not? You have deadlines for your probationary teachers. Helping them understand you don't have to automatically move all you probationary teachers to career teachers. If they are not getting it done, then they may not be in the right place to help kids.

In our earlier report on the Turnaround Schools program, we coined the term "scaffolded craftsmanship" to characterize the process through which local educators were guided by DST coaches to reconstruct—or in some cases, construct for the first time—a number of key structures and processes in their schools. As the detailed series of questions posed by the District Transformation Coach suggests, the current district-level DST interventions are guiding or "scaffolding" the detailed, point-by-point construction or reconstruction of the district-level human resource systems in a way that parallels the process at the school level.

According to the District Transformation Coach, the district has also made a concerted effort to replace ineffective principals and teachers. As a condition of the Race to the Top grant, nine of the district's eleven principals have been replaced. Last year (2010-11) was the first in many years when the district did not renew all teaching staff. Over thirty teachers in their first three years of service were not renewed, and "some career teachers were dismissed," as well. The district has also instituted the use of "intent forms" which teachers who plan to retire or move to another district use to notify the central office. By February, 2012, when our first round of interviews was conducted, 14 teachers had already submitted forms notifying the district of the intent to leave as of the end of the 2011-12 school year.

To recruit replacements for the teachers who were let go, the district's Director of Human Resources has advertised through a variety of online services, participated in career fairs at colleges and universities across the state, and—at the urging of DST officials – hired a substantial number of Teach For America corps members. In fact, during the 2011-12 school year one elementary school in the district was staffed exclusively by TFA corps members. In studies sponsored by the UNC General Administration, CIPP researchers have found that TFA corps members, though few in number, are the single most effective category of teachers in North Carolina public schools (Henry, Thompson, Bastian, Fortner, Kershaw, Purtell, & Zulli, 2010). It is also true, however, that—consistent with their commitment upon joining the program—TFA teachers generally persist in NC schools for only two years, and very seldom for more than three years (Henry, Bastian & Smith, 2012). So it is not surprising that one central office administrator in this district complained that reliance on TFA teachers who remain for only two years undermines stability and creates a "revolving door" in the school. Perhaps more surprising was her view that while the TFA teachers are well-motivated and bright, they do not have the necessary cultural background or classroom management skills to work effectively with students in the district, whom they perceive as loud and argumentative. Because the focus of the present study was at the district level, at this point we have no direct evidence concerning the

attitudes or classroom management skills of the district's TFA teachers, but between 2009-10 and 2011-12, the school's Performance Composite rose by 8.2 percentage points, the largest improvement of any elementary school in the district.

In the third of the three rural districts in our sample, improving human capital via personnel replacement has proven difficult. The Superintendent reorganized his administrative cabinet and hired as "Chief Learning Officer" a person from a firm that had been consulting with the district, but the person appeared to have difficulty letting go of his consulting business to devote himself fully to work within the district and moved on within a few months. Other central administrators have generally been promoted from within the district. This is the district discussed earlier where mistrust problems seemed to be impeding vigorous independent action. Several principals have been replaced or moved, but at the time of our interviews, the effects of these changes were not yet clear. Recruiting good teachers remains a major concern of the Superintendent's, and of special concern were the large numbers of lateral entry teachers in the district. Recounting a presentation by UNC-CH researchers that pointed to a strong correlation between high concentrations of lateral entry teachers and low scores on EOC mathematics and science exams, the Superintendent said, ". . . and here we sat with one pre-service math major at our high school level. The rest were all lateral entry. The same with science. . . . these folks, where did they learn to design a lesson? I mean, it was on-the-job training. And if the person mentoring [them] . . . didn't have the requisite knowledge to assist, what did we get?" The Superintendent also noted that his district is not in one of the two areas of North Carolina served by the Teach For America program (Charlotte-Mecklenburg and northeastern NC).

The Superintendent had opened the interview by saying, "One of the things that became very clear [early in his tenure] was that we needed to focus on human capital development. We almost entirely needed to invest in our people. You know the [tongue-in-cheek] adage that you hear at the classroom level that somehow the parents are keeping the good kids home, they're sending us the bad ones? Well, that applied to the teachers. Somehow, they're keeping the good ones somewhere else. And so we had to make a decision . . . that we were going to invest in our people. . . . So that's what we did. We designed all of that." By "all of that," the Superintendent was referring to the carefully designed system of professional development and follow-up coaching that he had organized (described in the next section). What he was telling us, without being entirely explicit, was that given the limited financial resources at the disposal of the district and the limited cultural amenities in the county, the prospects for building human capital via personnel replacement seemed dim indeed, and that a "grow your own" via professional development and coaching strategy seemed the only viable option.

Great as the teacher recruitment and hiring challenges were in the three small rural districts, they appeared even greater in the single urban district. The new Superintendent had brought in several colleagues from his former district to strengthen the central administration, and at the time of our interviews, the process of integrating the new people into a team with administrators already in place was still in progress. At lower levels of the system, some DST coaches found the hiring process in the district slow and unwieldy. They reported that even after a principal has made a decision to offer employment to an applicant; it can take up to eight weeks to get the person on board. Rapid turnover also remains a problem: "If they hired twenty people over the summer, eight of those people have left already [by February]. They hired them and ended up putting many of them on support plans [within a few months], so they really need help to recruit and

select higher quality people." A central office administrator confirmed these perceptions: ". . . because our HR has been realigned, an issue for us is really hiring time and finding good people. And so, I think our new chief human resources person has been challenged now with we've got to get people in place faster and recruit more quality candidates. I think it is getting better. [One of our special challenges is] . . . that we are in competition with other school districts whose issues are different from ours. And they pay a little bit more. So, a lot of times, we train [teachers] and they transfer . . . in our lowest performing schools, from a teacher perspective, 'So why should I go there?' . . . in a lot of cases we're ending up with first-year teachers or teachers who are not our first choice because we have to have teachers."

Professional Development and Coaching

The transformation efforts under way in the four districts we studied include three types of professional development: (1) PD provided by the districts themselves, (2) targeted, custom-tailored PD provided by DST coaches on an as-needed basis as they and local educators identify knowledge and skill deficits within the districts, and (3) PD provided to the lowest-achieving schools in the district as part of the DST's broader program of support to the lowest achieving 5% of all elementary, middle, and high schools, statewide. Because the present study focused on efforts within the four districts, in this report we discuss the first and second types. The professional development provided by the DST to the lowest-achieving districts is also important, and we have surveyed participants in those sessions on how well the PD prepared them to implement all twelve elements of the comprehensive Race to the Top program specified by the US Department of Education. We will present and discuss the results of that survey in a separate report.

The most thoughtfully district-designed system of PD that we could identify was in one of three small rural districts. The Superintendent portrayed the PD as an integral part of his broader effort to improve curriculum, instruction, and assessment in the district, which he referred to as Total Instructional Alignment (Carter, 2012):

> "What we mean by Total Instructional Alignment is aligning the standards, curriculum and instruction, assessment, and PD. Standards have to come first. So we began four and a half or five years ago [just after the Superintendent came to the district] really to unpack the North Carolina Standard Course of Study, which had never been done. So we spent two full years literally deconstructing it . . . so that our folks would understand that content . . . the standards and curriculum. So [at that point] what was missing was really the emphasis on instruction. And based on a theory of action that started with a *what*—so there's your curriculum—our folks needed to know *what* and *why* and then *how*. The assistance we had received up until that time was all about *how* to do things, but if you don't know the *what* and the *why*, *how* makes no sense.

So [from that point forward] the human capital development is really laser focused on instruction. . . . It doesn't matter what subject area, this is just good pedagogy. This is just what it looks like. So that's why we developed the Learning Development Centers. . . . if I look at the hands of the clock, if standards is at 12 and the assessment's at 6, we needed to get our 3 o'clock, which was the instruction, and then come across here to 9 o'clock, which was the professional

development. So, we put these two on kind of the X axis of instruction with our professional development, that's where we linked those together.

The district created four of these Learning Development Centers, two funded primarily by Race to the Top funds and two funded by a School Improvement Grant. "The original construct," the Superintendent continued, "was informed by adult learning theory, and—believe it or not—addiction research. . . . there is a precursor to physical addiction which has to do with the way people think. So, we needed to change the way people think in order to change their behavior. We also know from adult learning theory that if we create . . . cohorts—smaller, self-selected groups—adults would lessen their averseness to the risk of changing their thinking." So in self-selected cohort groups of four, teachers come to the Learning Development Centers for several rounds of professional development focused first on the basics of instructional design—" . . . here comes a massive resurrection of Dr. Madeline Hunter. So we bring Dr. Hunter's work back in and [deal with] anticipatory set, checking for understanding, wait time . . . all of these things that are just good, effective practice. So that's where we are right now, and we are planning . . . along with our strategic partners like Thinkgate, to automate a lot of what I've just said—automating with respect to here is our standard, here is our curriculum, here is now our ability to do instructional design, a unit as well as an individual lesson, to here's the assessment component, all in incredible, rich digital resources. . . . So in July . . . we'll be ready now to go into the most granular level, which is the teacher design of individual lessons" (Hunter, 1994).

Backing up a bit, the Superintendent explained that central office administrators and principals went through the professional development process before the teachers, so that they would have a full understanding of what their teachers were about to learn and would know what to look for in the classroom after teachers completed the professional development: "We've been working on all three. We didn't have the system-level capacity to be able to facilitate. We didn't have the building administration capacity to facilitate. And we certainly didn't have the classroom piece."

Despite this systematic, coherently conceived program of professional development, DST coaches report that when it comes to actual classroom implementation of what they have learned, teachers are often at a loss: "I mean teachers will come to me . . . and they'll say, "I know I sat in the staff development, but I don't understand any of [the instructional strategies] well, so which one do I do? Because they don't want to be in trouble for not doing something. So I try to help them with one particular thing. I would rather they would do one [instructional strategy] right than worry about all four and not do any of them very well." In part, as indicated in the section above on setting a manageable pace, the problem is that teachers were overwhelmed by the profusion of new skills to learn.

But evidence from several sources indicates that the problem was more complex than overload alone. The level of prior practice in the schools was extremely low. For example, the District Transformation Coach told us, "I'll be generous. You go into fifty percent of the classrooms in the district and there is no prior planning." Teachers, he said, had been failing to implement even the basics of good instruction: "Simple things like letting students know what the objective of the lesson is for today, what they are hopefully going to learn and then try to determine throughout the lesson whether they've done any learning or not, and where's there's a gap still to be filled with your next learning." These comments indicate that many teachers had been almost completely unfamiliar with the elements of effective instruction codified in the work of Madeline

Hunter mentioned by the Superintendent (Hunter, 1994). In this context, after professional development sessions on teaching students to make inferences, for example, ". . . some of [the teachers] can talk a good game . . . but the actual going into the classroom and doing it, they have no idea how to start. And so [first] we're going to show them how to put that into a lesson plan. What would you model [for the students]? How would you show students what [making inferences] looks like? Then how would you guide students through [trying] that so that they can become more proficient? How would you give them independent practice? So we want to show them how to actually take that strategy and apply it in a lesson, then follow through to see if the kids understood it." In addition to breaking down the lesson planning process and guiding teachers through that thinking process, the coaches were saying, they had to follow through by modeling what the teaching of inference actually looks like in the classroom, sometimes by teaching classes themselves and sometimes with the use of video clips. In other words, the coaches had to use the same teaching strategies with the teachers that they were asking the teachers to use with their own students—modeling, scaffolding (guided practice), and then gradually withdrawing as the learners use the strategies more independently (independent practice).

Professional development could help teachers understand the teaching strategies conceptually, but specific, concrete modeling and scaffolding—actually *showing* the teachers how to carry out the strategies in the classroom, then watching them try the strategies themselves and following through with feedback—were required to enable teachers to put what they had learned conceptually into actual practice. Expecting teachers to implement what they had been taught in concept without specific coaching (modeling and scaffolding) was like expecting an actor to play the role of Hamlet on the basis of a literary analysis of the play, without a detailed script or extensive guidance from a director.

Yet even professional development plus specific coaching was not sufficient, the DST coaches explained. If the newly-learned skills were to become a routine part of teachers' daily practice, principals and assistant principals had to follow up with regular observation in the classroom. They had to hold teachers accountable for implementing the strategies on a regular basis. To be able to conduct meaningful classroom observation and provide feedback to teachers, the principals and APs needed not only to understand the strategies themselves, but also to know what the strategies look like in practice. The Superintendent had recognized that principals and APs would need professional development on the same instructional strategies that the teachers would later be learning. But as was true of the teachers, the principals and APs often needed not only to know what the instructional practices look like in action but also to see what good feedback practices look like in action. The School Coaches had to work with principals and APs in a manner paralleling the work that instructional coaches were doing with teachers—they had to model what good classroom observation and feedback look like, then guide and assist principals as they gradually mastered the process of observing and giving teachers feedback, themselves.

Reflections: An Expanded Concept of "Productive Connections"

The parallels across levels of the district transformation process are striking and instructive. Earlier we theorized that a district-wide transformation process entails making a whole series of "productive connections," defined as connections among people or across levels of a school

district that combine the assertion of accountability on the one hand with strong positive relationships plus engagement on the other. Now we wish to expand the notion of a "productive connection" to include the provision of guidance, instruction, and assistance in the context of this nexus of accountability and relationships. For transformation to work, we now theorize, at each juncture up and down the district, the person in a leadership position not only must bring those s/he supervises on board by working to develop positive relationships with them and also holding them accountable for behavior that promotes or produces better student learning, but further, within this dual accountability-and-relationship bond, the leader must also be prepared to help those whom s/he supervises to learn to do their jobs better.

As we showed in our earlier report on the Turnaround Schools program, in the improved schools, principals both held teachers accountable for better student achievement and formed close relational bonds with them. But accountability and bonds were not enough. Working with DST coaches, principals of improved schools also provided PD, coaching, structures, and support for teachers to improve the instructional process. In turn, teachers simultaneously demanded more of their students and strengthened relationships with them. Again, however, accountability and bonds were not enough. With guidance and support from the principal and coaches, teachers in these schools also led students through the Standard Course of Study with well-crafted lessons, checked to see whether students are learning what they are taught, gave extra help where students have fallen short, and—working with their colleagues—revised their own teaching to improve the chances for more students to learn effectively.

Now, on the basis of the present study of district dynamics, we theorize that for district-wide transformation to occur, this same complex of productive connections must extend up and down the entire system. Thus, at the next juncture up the system, the central office administrator who supervises the principal must form a similar accountability-and-relationship bond with the principal, must know quite clearly what kinds of leadership s/he is looking for in the school, and must be know how to either provide assistance herself or to arrange for appropriate professional development and coaching for the principals she leads. And so on up the system to the Superintendent and Board. According to our theory, district transformation occurs to the extent that productive connections are made at each of the key junctures in the district—between or among (1) the superintendent and the school board, (2) the superintendent and other top central office administrators, (3) individual district administrators and their central office colleagues, (4) the superintendent and top central office administrators on the one hand and the principals of schools across the district on the other, (5) the principal and teachers within each school, (6) individual teachers and their fellow teachers within schools, and (7) perhaps most important, principals and teachers on the one hand and parents and students on the other.

The job of DST coaches, we theorize, is to help district administrators, principals, and teachers develop this system-wide web of productive connections. According to this theory, if connections fail at any point up and down the system, the web is weakened, and transformation is at least partially undermined. There is no single point in the system where intervention will magically change the rest of the system. Further, the potential for breakdown is everywhere and ever-present. For example, even after teachers have been through a systematic professional development program, they may be unable to enact what they have been taught in the classroom. With explicit modeling and subsequent feedback from coaches, they may learn how to implement new techniques, but even after that, follow-up monitoring by principals and APs is

necessary to assure that newly-learned techniques are used on a regular basis and become part of the teacher's routine practice.

So how does personnel replacement—discussed in the immediately previous section—figure in the construction of this network of productive connections? We propose that in essence, good administrators and good teachers are people who know how to make productive connections with those whom they are responsible for leading—people who know how to form positive relationships with others while also holding them accountable for improving student achievement, but people who also know how to guide, instruct, and assist those whom they are responsible for leading. To the extent that a school district can replace (a) people who cannot succeed at the complex challenge of making productive connections with (b) people who can make productive connections with those they lead and with their colleagues, the district's human capital will improve. And further, the need for professional development and coaching will be reduced. What successful PD and coaching do, in essence, is to strengthen the capacity of people to make productive connections with those they are responsible for leading. As we showed in the section on personnel replacement, one reason low-achieving districts exist is that—given the limited material and cultural amenities as well as the compensation they offer—they often have trouble competing for the talented and well-trained people required to teach their challenging student populations. Unfortunately, the same financial limitations often make it difficult to for districts to design and support effective programs of professional development and coaching. Thus the need for a District and School Transformation unit at the state level to supplement what districts are able to do for themselves.

Coaching: Approaches, Context, and Connection

With this account of the central dynamic of district transformation established, we now offer some observations on the range of techniques employed by coaches, the mechanisms through which each technique may work, and some of the tensions and dilemmas involved in coaching. DST coaches use a wide variety of techniques, and the techniques are calibrated to fit both the timing of the intervention and the level of the system at which coaches are intervening.

When they first begin work in a district or school, DST coaches report, they devote considerable time to relationship-building and "just listening." In the largest of the four districts we studied, the DST District and School Coaches explained that the most important starting point for their work was "to ask the right questions," in part to develop their own understandings of the issues in the district, but also as a way of prompting district and school administrators to reflect on what they are doing. They suggested that the external perspective they bring to the district may prompt district leaders to look at their challenges and approaches in a fresh way. At this level of intervention, the assumption is that questions promote reflection, and reflection leads to improvement.

As they gain the trust of local educators, some DST coaches report moving beyond listening to using more active techniques. For example, one District Transformation Coach reported "trying to create constructive dissonance" and a sense of urgency about reform. He admitted being quite blunt at times: "The thing I keep asking [the Superintendent] and a lot of other people is, 'For us it's been 6 months of rhetoric. Now when do we see something different happen?'" Here the intent is not simply to stimulate reflection, but to galvanize action. Despite or perhaps even

because of the blunt challenge he had issued, the DST district coach appeared to be gaining the trust of the Superintendent. He had entered the district during the summer of 2011, and by early in the spring semester of 2012, the Superintendent invited him to make a "brutally frank" presentation to the school board about why the DST was intervening and what he saw as the major problems in the district. The coach's PowerPoint for the occasion indicates that he did make a frank though not brutal presentation. For example, after noting that the district was among the lowest-performing in the state, he pointed out some of the factors contributing to low performance:

- Leadership is not consistently monitoring and holding teachers accountable for implementing the components of effective instruction.

- The implementation of the new teacher evaluation model and the data gathered is not congruent with the teacher effectiveness data from last year.

- Although there are a few effective or highly effective teachers, there is a lack of consistent teacher effectiveness across all grade levels and schools.

- There is a lack of correlation between the professional development provided and its fidelity of implementation in all classes and schools.

The tough message in some points seems softened by the abstract way they were stated. For example, the second bullet is saying in a diplomatic way that last year, many teachers got high ratings on their evaluations despite their students' poor scores on EOG or EOC exams. The third bullet means, in essence, that there are many poor or mediocre teachers in the district. And the fourth, that teachers are not carrying out in the classroom what they have been taught in PD sessions. But if the slides themselves were stated diplomatically, in his remarks, the coach apparently made his meaning clear, setting off "a lot of discussions across the district" about who bears how much responsibility for the low student achievement. Explaining the discussions from the teacher's point of view, the coach explained, "Obviously as a teacher, I do bear a great part of [the responsibility] for my students' success, but leadership also bears part of that in terms of what kinds of supports are they providing for me. If its professional development, am I appropriately trained? What kinds of supports do I get to make sure that professional development is implemented in the classroom? . . . if I'm the principal, how does central office support me . . . ?" In the coach's view, discussion around the district had gradually progressed past blame-placing to a phase in which teachers, principals, and central administrators across the district were beginning to see how their respective roles and responsibilities could fit together to improve student learning. So in addition to promoting reflection, creating discomfort, and pressing people to translate rhetoric into action, another mechanism for change was to stir discussion across roles, leading to clearer common understanding about the responsibility each person bears within the system.

In a later slide in his presentation to the Board, the District Transformation Coach took a still stronger approach, issuing a broad prescription for change in the district. Under the heading of "What's Next?" the coach made these points:

- If leadership and teachers do not know what is expected, then they have to ask and be trained and supported.

- If leadership and teachers know what is expected and have been trained and supported and do not implement [what they have been trained and supported to do] with fidelity, then the community must demand change in all ineffective personnel.

The slide closed with the statement that the longer a student is in school in the district, the farther he or she falls below expected year-to-year test score growth.

If correctly calibrated to the level of trust a coach has achieved with local educators, such bold challenges and broad prescriptions for action may foster a sense of urgency and outline a general approach to improvement, but the District Transformation Coach and his colleagues recognized that urgency and a general approach were not sufficient. Further, even the specific objectives, plans, timelines, and structures specified by the district, while offering a helpful framework, were not adequate to improve school practices and outcomes. As the School Transformation Coach explained, "There's a structure in place for the deliverables. So there's the annual planning template table. Everybody has department meetings, grade level meetings, faculty meetings, common planning time. . . . The process, though, is what you actually do to execute your goals and your plan. So the issue is how to you take all of those juggling balls and make the school building a very coherent place. You have to have the right action steps in place to tie those things together." In other words, specific skills were required to translate urgency into action in the day-to-day work of schooling.

To help principals focus on the essential tasks of improving instruction within the blizzard of demands constantly coming at them, the District Transformation Coach and his colleague at the school level were working with them on time management skills, such as blocking out time each day for classroom observations and holding the time sacrosanct even against common emergencies, such as the sudden arrival of an angry parent. They were also leading principals through a planning process designed to help them put all of the components of productive connections into place: ". . . I set up these are the goals for the year. These are the topics I'm going to train people in. How do I train teachers in that? When do I provide the time? Do I create a professional development calendar for the year? How do I fund it? When are we going to do it? Then once people are trained, do I go back into the classroom and monitor that it's being done? Then how do I give them feedback? How do I evaluate it?"

As noted above, coaches also frequently reported using the modeling and scaffolding approach, particularly at the classroom level. In fact, in the district where DST intervention was intensified by the *Leandro*-related consent order, district administrators report that instructional coaches are expected to do a significant amount of actual classroom instruction. According to one top administrator, "District and DPI coaches are to be hands-on. They are to provide direct instruction to children in the classroom and at other designated times." An Instructional Coach confirmed this with a specific example: "We have put Literacy Coaches in all 3rd grade classrooms in a co-teaching model, so that we are supporting these teachers in literacy and actually doing some demonstration and co-teaching of best practices, which we hope will build those 3rd graders because it's the first year that they take any kind of standardized test."

While this degree of direct involvement in classroom instruction was unique to the district where the consent order had led the NCDPI to allocate an unusually high level of resources, Instructional Coaches in other districts also reported doing demonstration lessons and following

these up with classroom observation and feedback to help teachers implement the techniques they modeled. As indicated earlier, given the low skill levels of many teachers in the districts served by DST, such demonstrations and follow-up were essential to help teachers move beyond knowledge about new teaching techniques to acquire the know-how to put the techniques into practice in the classroom and to connect with their students as they do so. As one Instructional Coach explained, even after many teachers learn how to construct solid lesson plans, ". . . when it comes to delivery . . . they're sort of in their own world, so they're up there teaching away and the content is great, but nobody in the room has any clue what they've just talked about." Over and over as we listened to DST coaches, we were struck by the danger of failing to make the last-mile connections that are commonly assumed to be made. As we stressed earlier, there is no one key to district and school transformation, but a complex web of connections must be made up and down the system.

The question that DST coaches face, then, is what does it take to assure that these connections get made up and down the districts they work with? One issue is how assertive coaches should be. As we have seen, the District Transformation Coach in one of the small districts we studied rapidly developed a sufficiently trusting relationship with the superintendent to challenge him and the Board openly and strongly. Yet as a DST coach in another district explained, the issue of how strongly to intervene is a delicate one at all levels of the system:

> "We really are in a support role and I think we work really hard to make sure they feel supported by us because if not, you don't get information. They don't respond. They feel it's another person coming at them with something to do or something they haven't done right so we've had to be extremely careful with transferring information and knowledge, relaying messages, providing resources, sort of without stepping over the line and just trying to stay in the world of coaching as opposed to 'let me run your school because you've probably heard I could.' Whether they've heard that or not, I've picked up that [from them]. That is 'Oh goodness, someone is here to help me run the school.' It's scary [to them].

> . . . just for full disclosure, . . . the coaching role has been something that we've had to figure out how to come into play because we've all been supervisors and evaluators for decades. It's very hard not to transition into a supervisory role because . . . we've done it. I mean we could come in and just say move aside, or let me tell you what to do, and the reality is that it's a lot easier to be an evaluator and a supervisor at this point than a coach. So it's been a struggle for me."

DST Director Dr. Pat Ashley emphasized to us that in recruiting coaches, she looks for people with successful experience at the level of the system where they will be coaching—district, school, or classroom—in challenging contexts like those in the low-achieving districts and schools where her unit is working. The logic of doing so is clear, and while the coaches' experience as line administrators or teachers is undoubtedly a major asset, their habits of taking charge in those roles may be difficult to hold in check as they move into the coaching role. In fact, in all three of the small rural districts we studied, we heard complaints that coaches sometimes did "step over the line." The superintendents and many principals across the districts had their own ideas and plans for improving student achievement and sometimes believed that

"the DPI" or the coaches were intruding on their plans and complicating matters rather than "staying in the world of coaching as opposed to 'let me run your school.'"

The argument for outside intervention seems compelling—after all, performance in these districts and schools is the lowest in the state, and in the past they seem to have made too little progress on their own. Further, it is not clear that gentle, indirect approaches such as "asking the right questions" will be adequate to transform these districts. Interventions that are not only more forceful but also more explicit in actually modeling the desired skills and behaviors may be required to bring about real change. But particularly when superintendents and principals are new to their districts or schools, they often believe that their own plans have not been given a fair chance to work and regard more active DST intervention as interference rather than assistance. The tension between the need to establish and maintain trust on the one hand and the need to create urgency and model specific new behaviors on the other is a tension that DST coaches are conscious of and working to manage. Over time, how adroitly they do so seems crucial to the success of the DST initiative.

Structures and Support for Instruction

In our study of the Turnaround Schools program, we found that in schools where substantial improvement had taken place, principals were not content simply to establish accountability and bonds with teachers, nor even to strengthen the knowledge and skills of their teaching staffs, but followed up these steps by creating a variety of structures and supports designed to assure that the NC Standard Course of Study was taught systematically, that teachers used regular benchmark and formative assessment to check student learning, and that teachers used the results of these assessments to guide both improvements in their own instruction and interventions to help struggling students (Thompson, et al. 2011). In the present study, we found that district administrators and coaches were working with principals to establish similar structures and supports, including regular classroom observation, professional learning communities, curriculum pacing guides, common lesson plans, more systematic implementation of benchmark and formative assessments, and analysis of assessment results to guide instructional improvement and remediation.

Earlier in this report, we first defined "productive connections" between people at different levels of a school or district as those which include both the assertion of accountability for student achievement and strong, trusting relationships. Then we expanded the concept to include the provision of guidance, instruction, and assistance. Now we propose that a fully productive connection extends still further, to include monitoring implementation, assessing results, and making ongoing adjustments to improve teaching and learning. The coaches engaged in DST's interventions in low-achieving school districts are essentially trying to help local educators weave a web of such productive connections at junctures up and down the school system— between the superintendent and central office administrators, among central office administrators, between the superintendent and central office administrators on the one hand and principals on the other, among principals across schools, between the principal and teachers within schools, among teachers themselves (professional learning communities), between teachers and their students, and between the principal and teachers on the one hand and parents on the other.

We also want to propose that productive connections among colleagues are just as important as productive connections across levels of a school district. Most of the connections we have described in previous sections have been of the traditional administrative variety, in which someone in the organizational line of authority creates a productive connection with those whom s/he is responsible for leading. In principals' and coaches' efforts to create professional learning communities, we see connections of a different kind—professional rather than hierarchical administrative connections. Teachers hold no formal organizational authority over each other, but in a well-functioning professional community, teachers hold each other accountable for contributing to school-wide student achievement while also forming mutual bonds of trust; they guide, instruct, and assist each other as they share or jointly develop lessons, observe and pick up new teaching techniques from each other, fashion common formative assessments, and deliberate together about what the assessment results imply about needed changes in their teaching and interventions to help struggling students; and these same interactions among teachers give rise to norms of good practice—unwritten rules that shape the behavior of members of the professional community – thus helping to assure systematic implementation of the Standard Course of Study, regular checks of student learning, ongoing adjustments in instruction, and assistance to students

who fare poorly on assessments. Further, as implied by our earlier discussion of the destructive consequences of mistrust among top administrators in one district, professional community—productive connections among colleagues—is important at all levels of the district.

With this expansion of our concept of productive connections as background, we now offer some selected descriptions of the effort to establish such connections in the four districts we studied. Our goal here is not to produce a comprehensive account of developments in each district, but to illustrate our emerging theory with examples of the supports for instruction that district officials and coaches are working to establish.

As noted earlier, in one district, coaches reported that until recently, most teachers had not been using the Standard Course of Study to guide planning. In fact, one said, "I'll be generous. If you go into fifty percent of the classrooms in this district . . . there's *no* prior planning." Nor were lessons well-constructed: "Simple things like letting the students know what the objective of the lesson is today, what they . . . are going to learn, and then try to determine throughout the lesson whether they've done any learning or not and where there's a gap still to be filled with your next learning." Recognizing the depth of the problem, the Superintendent adopted an approach called Total Instructional Alignment (Carter, 2012) to address the entire gamut of issues. To support implementation of this approach, he created a set of Learning Development Centers designed to conduct professional development for principals as well as teachers. Professional development sessions began by "unpacking the Standard Course of Study" and proceeded through sessions on pacing guides to distribute objectives over the semester and year in a functional way, the elements of effective instruction codified by Madeline Hunter (Hunter, 1994), and the use of common formative assessments. During the period when we were conducting our interviews, DST coaches were working with teachers to support implementation of what they were learning through the PD and with principals to assure that they followed through with classroom observations to hold teachers accountable for implementation. As indicated earlier, many teachers' required extensive modeling and scaffolding to learn how to implement the new techniques, and principals were slowly learning how to conduct meaningful classroom observation and feedback sessions. Discussions among administrators and teachers to develop a common lesson planning framework for the district were also under way.

In a second district, the Superintendent began his account of the district's work to assure implementation by describing the process for monitoring classroom instruction: "we created classroom walkthroughs on an iPad—we bought iPads for all of our administrators. One of our non-negotiables was that every principal and assistant principal had to do 15 formal walk-throughs a week. And we've done a tracking system through Google where we've looked at about nine different measures when they're going into a classroom, from the lesson plan to . . . student engagement." He continued by emphasizing the importance of assessment: "Everything we've tried to do this year in pinpointing and seeing some gains, particularly at our two high schools in first semester EOCs, [derives from] . . . assessment. So, we have non-negotiables that we created . . . for administrators, for teachers, and all staff that are aligned with our strategic plan, and one of our non-negotiables is the use of ClassScape for pre and post assessment of students on a weekly basis, and then [for] four and a half week benchmarks." Further, he noted, ". . . [we] didn't have alignment with our pacing guides. Some teachers . . . didn't even have a pacing guide. And so, . . . we ensured that every single subject had a pacing guide. [Then we said] . . . over a four and a half week period, here are the objectives being taught, and here are the

objectives that are going to be assessed. . . . then what we've tried to focus our PLCs on is, here's our data, here's where the students fall—we've even gotten into some simplistic red, yellow, green zones as ways for teachers to comprehend it easily. And then what we've tried to emphasize is going back and re-teaching those objectives [where assessment reveals problems] and bringing up the . . . student outcomes."

DST coaches generally confirmed this account, agreeing that across the district, before the new Superintendent came on board, teaching had been textbook-driven with little or no attention to the Standard Course of Study and explaining that ". . . we're trying to get the PLCs to really be PLCs and not just meetings"—that is, not just presentations of information, but close examination of curricular objectives, lesson planning, benchmark and formative assessment results, and use of DPI resources to help improve results. Coaches often guided the PLC sessions, posing "guiding questions" at each step to prompt teachers to think through the issues associated with each of these topics.

In a third district, DST coaches and district administrators gave accounts similar to those above. The District Transformation Coach (DTC) reported, "In terms of curriculum, there has been a real effort to ensure that the Standard Course of Study is being taught." DST has provided a weeklong summer professional development session each summer, featuring "a deep dive into the SCOS." Instructional coaches employed by the district developed and refined pacing guides during the summer months. According to an instructional coach, PLCs are used as contexts for common lesson planning, and some but not all schools in the district have adopted common lesson planning formats. Further, a district administrator said, "Formative assessment has been pushed this year. The teachers are to check progress daily." The DTC noted that the district has moved away from using ClassScape as its system for benchmark assessment. Teachers had been creating their own benchmark tests in ClassScape, and there was little correlation between student scores on the benchmark assessments and their scores on EOG or EOC exams. To replace ClassScape, the district adopted Measures of Academic Progress (MAP), and common assessments are created by teachers in concert with instructional coaches employed by the district. So teachers can now examine common assessment results in PLCs. The district is also promoting the use of NC Falcon (North Carolina Formative Assessment Learning Community's Online Network) as a resource to help teachers develop a fuller understanding of formative assessment. Finally, instructional coaches have also shown teachers the importance of grading student work and giving feedback in a timely manner. As one explained, "The instantaneous feedback helped to encourage the students—not only that but you had that strategy of error analysis where it's like, 'Okay, this is what I made. . . . where did I go wrong and let me correct this.' So they knew they had an opportunity to bring [their grade] up. . . . Not just marking an answer, but 'What did I do wrong?' And then having them work with partners and ask those same questions and actually argue about the math problems. It was very beneficial."

In the fourth district, a central office administrator reported that there has been a complete overhaul of the assessment process and an increased emphasis on the use of assessment results in PLCs:

> The heart of what we're trying to do we call Assessment for Learning, but some people refer to it [simply] as PLCs. It's basically helping teachers dissect the curriculum so they understand it [more thoroughly], then how they're going to assess it, and once they assess

> it, whether or not students have mastered the content, [and] what do you do next? And . . . those are the three items that we really try to highlight—you are going to unpack your curriculum, is there common understanding [among teachers] of what the learning targets are? Once the understanding is there, then they use that to develop your lesson, and deliver instruction. Once instruction has been delivered, assess student mastery, and then based on the results, you either enrich or remediate. . . . in our professional development and our professional learning communities that's what we try to focus on.

In this as in other districts, we encountered different views of just how far along the process of establishing supports for instruction on a district-wide basis really was. Some questioned whether the "complete overhaul" of the assessment system and implementation of PLCs had resulted in such close alignment of curriculum, instruction, and assessment as claimed by the central administrator quoted above. But in this rather large district the task was even more challenging than it has proven in smaller districts, and it is safe to say that across all four districts, the establishment of comprehensive, coherent supports for instruction remains very much a work in progress.

External Support

In our study of the Turnaround Schools Program, the final component of the change process in successful turnaround schools was "External Connections," which entailed securing district and community support. We found that virtually all schools saw a lack of parental support as a contributor to low student achievement, but while the staffs of schools that made little progress presented weak parental support as an excuse for low achievement and despaired of improving it, the principals and staff of substantially improved schools saw weak support as a challenge to be overcome. In the present study, we found that all four of the districts in our sample made improvement of parent and community engagement one of their three priority goals.

Asked why improving parent support was accorded such a high priority, one School Transformation Coach responded,

> Well, for example, one of the things that we are using is ClassScape. Students are assessed every four and a half weeks. The parents have to understand that we're teaching a set of objectives. Homework needs to be done. They need to follow up with everything the school sends home so that when the assessments come, they will know what the student is supposed to make or expected to do and they can support whatever we need to do if they don't do that, such as intervention times after school. Whatever the schools wants to put in place, parents need to be aware of that so that they can support those initiatives when they come directly from the school.

The District Transformation Coach added,

> And because of using ClassScape—the district made the decision to use ClassScape as part of the students' grades – and as a result, . . . student scores have not been as good [as they were previously]. And you had students who were used to making A's and B's all the time. ClassScape is counting twenty-five of their nine week grade so it's pulled their scores down, which parents . . . have a concern about. They don't necessarily understand it so when we start talking about ClassScape, they have to understand . . . that we're raising the level of rigor because it's something that the children need to be ready for when they go to college. . . .

In addition, the coaches explained, several parents of students accustomed to making A's and B's began to complain to friends on the school board, and some board members began to call into question the assertion of higher standards for student learning. A protracted series of discussions between the superintendent and board were required to re-establish the changes in the global economy that made it necessary to raise standards in the state.

The superintendent of another small rural district told of similar struggles:

> "[In the past] I am not sure we have subscribed to the 'Whatever it takes.' . . . Because I'm not sure that in this community there is a belief that all kids should learn. I mean, when you have the textile legacy . . . the tobacco legacy, the chicken farms and chicken processing plants, those aren't predicated on high level skills in terms of what people think and what they can do. So [some in the community are not sure] . . . they want to get

these folks to the point where they think well, because they're going to want more wages. 'Why would we want an educated workforce?'"

He added, "I watched a parent, had a young lady [who was offered] a full-ride scholarship to Chapel Hill, arguably one of the premier public institutions of higher education. And I watched a father look at his daughter and say, 'Why do you want to do this? What's wrong with the life that I provided for you? Why would you want to go to college? Do you think you are better than us?'"

Particularly across the rural districts in our sample, the theme of community resistance to the assertion of higher standards for teaching and learning as a top priority cropped up repeatedly in our interviews. As DST coaches and district administrators noted, achieving higher standards for student achievement entails setting higher standards for school and district staff, expressed both in the standards for evaluation of those already employed by the district and in the standards set for new hires. The coaches and administrators reported that in the past, the richly interconnected networks of family relationships, friendships, loyalties among fellow church members, and business connections were frequently more influential in evaluation, hiring, and promotion decisions than were considerations of competence and dedication to student learning. Community members often used their contacts on the school board to protect people threatened by pressures to improve performance or to secure positions for themselves or their family, friends, or neighbors. As noted earlier, in these small districts, the school system was one of the largest employers. One observer went so far as to characterize the districts as employment programs for well-connected adults in the community rather than educational institutions for children. According to reports from many interviewees, changing the entrenched habits of hiring, evaluation, and promotion was a major challenge for district and school administrators committed to improving student achievement.

In all three of the rural districts we studied, however, DST coaches and district administrators reported progress in working with school board members as well as the parents and community they represent. In a particularly low-achieving district, NCDPI officials and the District Transformation Coach attend all board meetings and have worked for years to educate school board members about the distinction between setting broad directions for policy and intervening directly in personnel and operational decisions. As a result, a central administrator reported, board members are now much more likely to direct requests for help to the appropriate administrator in the chain of command than to get directly involved in personnel issues. In another rural district, the superintendent has repeatedly walked board members through the pertinent laws, regulations, board policies, and the documented record to support his recommendations on personnel issues. With this approach, he reported, the board has sustained 89 of his 90 recommendations to terminate the employment ('non-renew") of teachers, principals, or other staff. It was in the third of the rural districts in our sample that the District Transformation Coach made the tough presentation regarding the low performance of schools in the district and the reasons for the low performance, concluding one slide with the following statements:

- If leadership and teachers do not know what is expected, then they have to ask and be trained and supported.

- If leadership and teachers know what is expected and have been trained and supported and do not implement with fidelity, then the community must demand a change in all ineffective personnel.

Our interviews across the three small districts suggest that NCDPI officials and DST coaches have given district administrators considerable new leverage in their efforts to establish more productive relationships with their boards. Further, in all four districts, administrators and coaches reported increased efforts to engage directly with parents. For example, one superintendent held community forums at four locations in different parts of the district. After making an opening statement and taking questions himself, he had all key central office administrators arrayed at tables around the room, and they remained in place for an hour to take questions or discuss concerns with parents. Similar events were also reported in the other three districts.

In formal terms—in terms of North Carolina law and tradition—it is the community and the school board that represents the community that hold district administrators accountable for their performance. But as Judge Howard Manning, Jr. has pointed out in one of his rulings in the *Leandro* school finance case, school districts were created by the state of North Carolina, and ultimately, state government has both the authority and the responsibility to assure that all NC students are accorded an opportunity to receive a sound, basic education. In general, the NCDPI and its division of District and School Transformation have not chosen to exercise this authority directly, by taking over the operation of low-achieving schools and districts. Instead, the NCDPI has intervened largely by providing professional development and coaching to improve their performance. DST and other NCDPI officials may have urged the replacement of teachers, principals, and district administrators, but it appears that they have done so quietly, through advice and recommendations rather than through the direct exercise of the state's inherent authority. Even in the one district where Judge Manning ordered the state to intervene more decisively, the NCDPI has characterized the relationship as a collaboration rather than as a takeover.

In practice, however, our interviews indicate that DST coaches have tried to change the traditional relationships between boards and administrators in low-achieving districts by helping district administrators establish a clearer distinction between policy and operations, and to educate board members to limit their exercise of authority to the realm of policy, staying clear of personnel and other operational matters. Their interventions in this regard may be viewed as efforts to redress the balance between political and administrative authority in these districts, to re-establish or perhaps to establish for the first time an appropriate allocation of roles between the board as the agent of the community's legitimate political control over education policy and district administrators as professionals with the expertise to implement policy effectively. But through persuasion and not through the direct exercise of authority, NCDPI officials and DST coaches have also worked to establish the improvement of student achievement as the dominant goal in the districts, both as a matter of board policy and in administrators' and teachers' daily practice as they implement that policy. Judge Manning's ruling makes it clear that as the agent of the state's power over education in North Carolina, the NCDPI does have the authority to shape local district policy. So the agency appears to be acting well within its established sphere of legitimate authority. But as a practical matter, it has attempted to do so by positioning DST coaches as sources of assistance rather than people who are here "to run your school."

Viewing the DST's interventions within this framework, we construe what District Transformation Coaches are doing as attempting to help superintendents and district administrators establish more productive connections with their boards. As we have developed the concept through this report, productive connections include (1) the assertion of accountability combined with the establishment of trusting relationships, (2) guidance, instruction, and assistance, and (3) structures and supports for implementation. Working together, coaches and district administrators are attempting to hold board members accountable for setting policy with the top priority given to student achievement, something they cannot do without gaining board members' trust and respect; to guide, instruct, and assist board members in how to exercise their authority over policy without intruding into operations ("educating my board," as one superintendent put it); and to support implementation of the proper exercise of authority by structuring a process of decision making that emphasizes law, rule, policy, and facts rather than personal preference and connections.

Similarly, DST School Coaches and Instructional Coaches are helping principals and teachers establish more productive connections with parents. Recall the coaches' previously quoted explanation of why it is important to engage parents more fully:

> The parents have to understand that we're teaching a set of objectives. Homework needs to be done. They need to follow up with everything the school sends home so that when the assessments come, they will know what the student is supposed to make or expected to do and they can support whatever we need to do if they don't do that, such as intervention times after school. Whatever the schools wants to put in place, parents need to be aware of that so that they can support those initiatives when they come directly from the school.

The implication is that if parents do not understand and do these things, teachers cannot simply complain and throw up their hands in despair, but must explain their importance, teach parents what needs to be done and how, and follow through by checking to see whether parents are fulfilling their responsibilities. Within the resources available for this year's study, we could not fully explore the extent to which coaches, principals, and teachers were able to establish the close relationships with parents necessary to promote such productive connections, but on the basis of the few reports we did get, we got the sense that work in this area was in the very early stages of development.

Conclusion

As we indicated in the Study Design and Methods section of this report, our main objective for the present study was not solely to describe developments in a sample of the districts where the District and School Transformation division is intervening, but also and more importantly, to use what we learned about developments in the four districts to develop a theory of district transformation—that is, to crystallize and express the dynamics of district transformation in a clear, economical, and readily-graspable way. Such a theory has two purposes. It will guide our ongoing efforts to answer our overall research questions for the DST initiative, which concern the mechanisms through which DST improves student performance and, where improvement fails to materialize, why. But to the extent that they find the theory persuasive, coaches can also use the theory to guide their interventions. And in two subsequent rounds of investigation, we will develop evidence to support or revise the theory, thus providing an increasingly reliable conceptual tool to guide the practice of coaching.

In developing a theory, we are basically developing an answer to the question of what it means to "transform" a district. To be sure, a transformed district would be one in which student achievement, graduation rates, and other student outcomes have improved measurably and substantially. But our question is, how does such a transformation actually take place? And what role does DST play in the process of improvement? The theory that we have derived from the interview and other data we collected in the four districts in our sample can be summarized in the following series of hypothetical propositions:

- In low-achieving districts, a first challenge is to establish the improvement of student achievement and related student outcomes as the central goal of the school board and superintendent, not just rhetorically, but in the continuing flow of decisions that arise over time. The proliferation of plans based on mandates or requirements from many sources and the potentially conflicting claims of multiple community constituencies pose ongoing threats to the maintenance of a dominant focus on student achievement.

- Further, in low-achieving districts, connections are missing or weakly developed at many junctures up and down the system. That is, many junctures across and within the levels of a district lack one or more of the elements of a productive connection:

  1. the *combination* of assertive accountability and bonds of relational trust and engagement that fosters commitment to improve student achievement,

  2. the provision of guidance, instruction, and assistance that builds the knowledge and skills necessary to improve performance, and

  3. the ongoing support for and monitoring of good practice, assessment of outcomes, and use of assessment results to improve practice which assure that commitment, knowledge, and skills are actually put into practice to produce the desired outcomes.

- By "junctures" we mean the connections (or gaps) between superintendents and their boards; between superintendents and central office administrators; among central office administrators; between superintendents and central office administrators on the one hand and principals on the other; among principals across schools; between principals and teachers

within schools, among teachers within schools or departments; between principals and teachers on the one hand and parents on the other; and between teachers and students.

- The DST's district level interventions are essentially efforts to strengthen or create productive connections at all of these junctures, thus weaving a web of support for the improvement of student achievement.

- The elements of productive connections are similar across all of these junctures. In slightly different forms, they all involve (1) the combination of accountability and trusting relationships, (2) guidance, instruction, and assistance; and (3) monitoring practice, assessing outcomes, and using assessment results to improve practice.

- To carry out the latter two functions—(2) to guide, instruct, assist, and (3) to monitor and improve practice -- at any level of the system, leaders at each juncture need a clear, explicitly-defined concept of good practice. For example, a principal needs a well-defined image of good teaching as a basis for shaping and monitoring classroom instruction. Similarly, central administrators responsible for supervising principals need a well-defined image of good principal leadership.

- To improve practice over time, leaders at each juncture also need a good assessment system and knowledge of how to use assessment results to make changes in the shared image of good practice and in actual practice.

- The more complete the web of productive connections in a district, the more student achievement will rise over time.

- Pockets of poor achievement—such as a low-performing school or department—indicate failures to complete the web of productive connections.

- A complete web of productive connections includes both links in the administrative chain of command between levels of the system and links among colleagues within levels of the system, the latter often referred to as professional communities. Absent of productive professional links, productive administrative links will not be adequate to raise student achievement sharply.

- The key capacity of an individual at any level of the system is the capacity to make productive connections, both with the people s/he is responsible for leading and with colleagues.

- Professional development and coaching that are well-calibrated to the level of trust in the coach-client relationship and that attend to all elements of productive connections up and down the system can make strong contributions to the improvement of student achievement, but where connections remain weak after sustained intervention, personnel replacement is required.

- In sum, "district transformation" is essentially the process of changing a disconnected district into a productively connected district.

It would be premature to make any summative judgment of the degree to which the District and School Transformation division has succeeded in transforming the districts where it is intervening, but it may be useful to offer an interim assessment of progress to date. As Table 1 on the following page shows, in schools served by the DST, the two-year improvement in

Performance Composites from the 2009-10 to the 2011-12 school year clearly outpaced the statewide average improvement—by 8.8 percentage points at the high school level, 4.7 points at the middle school level, and 7.1 points at the elementary school level. Further, the improvement in Performance Composites among all schools where the DST was intervening at the district level, in addition to the school level, outpaced the improvement in schools where the DST was intervening solely at the school level by 1.7 percentage points. (School-only interventions resulted in slightly more improvement at the elementary school level, but the higher levels of improvement in high schools and middle grades with added support at the district level more than compensate for the advantage to school-only interventions at the elementary level.) These findings suggest that the DST's school-level interventions are making a notable difference in performance improvement, and that the district-level interventions are adding additional value beyond the school-level interventions by themselves.

Table 1. Comparative Two-Year Change in School Performance Composites during First Two Years of the Race to the Top Grant Period (2009-10 to 2011-12)

Group of Schools	Average 2-Year Change
Two-Year Change for Schools Statewide	HS: 0.7% pts. MS: 1.2% pts. ES: 1.2% pts.
Two-Year Change for DST Schools	HS: 9.5% pts. MS: 5.9% pts. ES: 8.3% pts.
Difference (Improvement in DST Schools > All Schools)	HS: 8.8% pts. MS: 4.7% pts. ES: 7.1% pts.
Two-Year Change for DST Schools with School-only Intervention (by level)	HS: 5.5% pts. MS: 3.9% pts. ES: 9.0% pts.
Two-Year Change for DST Schools with School and District Intervention (by level)*	HS: 18.7% pts. MS: 7.4% pts. ES: 7.0% pts.
Difference (by level)	HS: 13.2% pts. MS: 3.5% pts. ES: -2.0% pts.
Two-Year Change for All DST Schools with School-only Intervention	7.4% pts.
Two-Year Change for All DST Schools with School and District Intervention*	9.1% pts.
Difference (Additional Improvement Associated with District Intervention)	1.7% pts.

* Figures are for all 16 districts where DST has intervened during the Race to the Top period, including the 4 that exited the program after 1 year of DST-supported intervention and the 12 that had two years of DST-supported assistance.

We say that the findings "suggest" strong contributions by the DST rather than "show" or "prove" strong contributions by DST because additional statistical tests would be required to establish the strength of the DST interventions more firmly. For example, we would want to compare the improvement in DST schools not just with all schools statewide, but with the schools whose performance was most similar to the performance in the DST schools statewide, and as we made this comparison, we would want to adjust for differences in such variables as the percentage of students living in poverty. Further, as noted earlier, North Carolina's Race to the Top grant is supporting a dozen or more other initiatives that may also be affecting the schools served by the DST. But taken as rough interim indicators of progress; the results displayed in Table 1 are very encouraging.

In addition to improving student achievement as measured by Performance Composites, the DST also set the goal of improving high school graduation rates. As Table 2 shows, on this goal, the evidence is encouraging for DST interventions overall, but offers less support for a unique contribution for the district-level interventions. Statewide, from 2009-10 to 2011-12, high school graduation rates improved by 6.2 percentage points. In high schools served by the DST, the average two-year improvement was 9.5 percentage points—3.3 points more than in the state as a whole. This suggests that the DST has contributed to improvement in the graduation rate for the schools it served. But average graduation rates high schools served through school-only DST intervention actually improved 1.2 points more than did high schools where the DST was also intervening at the district level. The latter finding is not entirely surprising. The schools in districts where DST chose to intervene started with what amounts to a double disadvantage—they were low performing as schools but were also situated in low-performing districts. So it may take longer to make a difference in these schools than in those located outside of low-achieving districts.

Table 2. Comparative Two-Year Change in the High School Graduation Rate during First Two Years of the Race to the Top Grant Period (2009-10 to 2011-12)

Group of Schools	Average 2-Year Change
Two-Year Change for High Schools Statewide	6.2% pts.
Two-Year Change for DST High Schools	9.5% pts.
Difference (in Favor of DST High Schools)	3.3% pts.
Two-Year Change for DST High Schools with School-only Intervention	9.9% pts.
Two-Year Change for DST High Schools with School and District Intervention	8.7% pts.
Difference (in Favor of School-only Intervention)	1.2% pts.
Two-Year Change for High Schools Statewide	6.2% pts.

All in all, it appears that the DST is making a measurable contribution to the improvement of both performance and graduation rates in the schools it serves. Our findings from two rounds of study suggest that the school-level improvements take place through a process of "scaffolded craftsmanship" and that the additional contributions of the district level interventions may result from making "productive connections" up and down the school systems, thus supporting

scaffolded craftsmanship in the initially low-achieving schools in those districts. During the remaining two years of our evaluation of the Race to the Top-supported efforts of the District and School Transformation unit, we will examine these processes more fully in order to refine our findings and test their validity.

References

Carter, L. (2012). Total Instructional Alignment: From Standards to Success. Retrieved from
http://www.totalinstructionalalignment.com

Cohen D.K. and Spillane, J. (1992). Policy and Practice: the Relations between Governance and
Instruction. G. Grant (Ed.) *Review of Research in Education* 18, 3-49. Washington, DC:
American Educational Research Association.

Henry, G.T., Bastian, K.C., & Smith, A.A. (2012). Scholarships to recruit the "best and brightest"
into teaching: Who is recruited, where do they teach, how effective are they, and how long
do they stay*? Educational Researcher* 41(3), 83-92.

Henry, G. T., Thompson, C.L., Bastian, K.C., Fortner, C.K., Kershaw, D.C., Purtell, K.M., &
Zulli, R.A. (2010). Portal Report: Teacher Preparation and Student Test Scores in North
Carolina, Carolina Institute for Public Policy, University of North Carolina at Chapel Hill.

Hunter, Madeline C. (1994). *Enhancing Teaching*. *Macmillan College Publishing Company*.

Lencioni, P. M. (2002). *The Five Dysfunctions of a Team: A Leadership Fable*. San Francisco:
Jossey-Bass.

Lewin, K. (1951). *Field Theory in Social Science: Selected Theoretical Papers*. D. Cartwright
(ed.). New York: Harper & Row.

Rowan, B., Correnti, R., Miller, R. J., & Camburn, E. M. (2009). School Improvement by
Design: Lessons from a Study of Comprehensive School Reform Programs. *Consortium
for Policy Research in Education,* University of Pennsylvania. Retrieved from:
http://www.cpre.org/sites/default/files/researchreport/828_sii-final-reportweb-file.pdf

Thompson, C. L., Sykes. G., & Skrla, L. (2008). Coherent, Instructionally-Focused District
Leadership: Toward a Theoretical Account. The Education Policy Center at Michigan State
University.

Thompson, C. L., Brown, K.M., Townsend, L.W., Henry, G.T., Fortner, C.K. (2011). Turning
Around North Carolina's Lowest Achieving Schools (2006-2010), Consortium for
Educational Research and Evaluation–North Carolina.

Weick, Karl E. (1976) Educational Organizations as Loosely Coupled Systems. *Administrative
Science Quarterly, 21(1),* 1-19.

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