



School Turnaround through Scaffolded Craftsmanship

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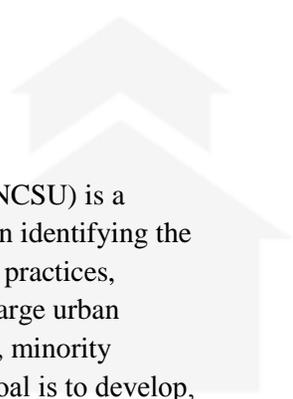
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The National Center on Scaling Up Effective Schools (NCSU) is a national research and development center that focuses on identifying the combination of essential components and the programs, practices, processes and policies that make some high schools in large urban districts particularly effective with low income students, minority students, and English language learners. The Center's goal is to develop, implement, and test new processes that other districts will be able to use to scale up effective practices within the context of their own goals and unique circumstances. Led by Vanderbilt University's Peabody College, our partners include The University of North Carolina at Chapel Hill, Florida State University, the University of Wisconsin-Madison, Georgia State University, and the Education Development Center.

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School Turnaround through Scaffolded Craftsmanship

Introduction

As calls to “turn around” America’s low-performing schools are heard with increasing urgency, policy makers and researchers have proposed a variety of approaches to the problem. These have generally emphasized some form of what federal policy labels “transformation” on the one hand and “restructuring” on the other. Transformation refers to improvements in organizational and instructional practice within the context of schools as currently governed and staffed, largely through professional development and technical assistance. In current usage, restructuring refers to changes in school governance and personnel replacement, a range of measures that includes closing a school entirely and dispersing students to other schools, state takeover, closing and chartering a school, turning it over to an educational management organization, or reopening it as a themed school, and replacing the principal and some or all of the teachers in a school.

Combining approaches consistent with variants of both restructuring and transformation, between 2006 and 2010 the North Carolina Department of Public Instruction (NCDPI) intervened in 66 low-performing high schools, 37 middle schools, and 25 elementary schools. Local districts replaced principals and substantial numbers of teachers, sometimes with encouragement from NCDPI “facilitators” (coaches). But at least equally important were professional development and sustained school and classroom-level coaching keyed to an NCDPI-mandated planning framework. In schools that improved, the combination of elements supported a process that I characterize as “scaffolded craftsmanship:” together, the planning framework, professional development, and coaching scaffolded a distinctly non-linear process through which local educators reconstructed key school functions, a process more like the work of skilled craftsmen and their apprentices than that of design engineers and installers.

On average, in high schools assisted by the NCDPI’s Turnaround Schools program performance composites (the percentage of state tests passed out of tests taken in a school) improved by about 11 percentage points over the four year period, while the 67 next-higher-performing, un-served high schools improved by an average of about 3 percentage points. Comparison based on a broader index of improvement -- gains in learning, adjusted for school and student characteristics -- reveals a smaller advantage to the treated schools but supports the efficacy of NCDPI interventions. Although on average the treated schools outgained similar untreated schools, the range of improvement among treated schools was wide.

In order to uncover the dynamics of the turnaround process, my colleagues and I studied schools with contrasting levels of improvement. Through a qualitative examination of 30 strategically sampled schools -- 10 that improved sharply, 10 that improved moderately, and 10 that made little progress or even worsened -- we sought to isolate the factors that promoted improvement in some schools and those that frustrated change in others (Thompson, Brown, Townsend, Henry , and Fortner, 2011). In the present paper, I focus on the 12 high schools we studied. In the balance of this paper, I describe the main features of the North Carolina Turnaround Schools program, outline our research methods, detail the process of scaffolded craftsmanship in improved schools, highlight the contrasts between improved and “stuck”

schools, compare our findings with prior research, and reflect on their implications. As I will show, in improved schools, the turnaround process echoes some of the main findings from prior research on school turnaround, with some significant additions. More importantly, the NCDPI's scaffolding enabled the state to put the turnaround process on a statewide scale.

Background on the NC Turnaround Schools Program (2006-2010)

NCDPI initiated its program to turn around low-achieving schools in 2005 in response to judicial and gubernatorial mandates (Fiscal Research Division, 2007; SERVE Center, Friday Institute, & Carolina Institute for Public Policy, 2010). The judge in the long-running *Leandro v. State of North Carolina* school finance suit, Judge Howard Manning, Jr. held that North Carolina's constitution obligates the state to provide every child a "sound basic education." Whether students were making adequate progress toward a sound basic education could be measured by whether they achieved proficiency on the state's End-of-Grade and End-of-Course tests. By Judge Manning's standards, a high school that was persistently failing to enable at least 55% of its students to achieve proficiency deserved to be closed unless urgent steps were taken to turn it around. Thus, in 2006 he ordered the NCDPI to assess such schools to determine why they were achieving so poorly and how they could be improved. Soon thereafter, Governor Mike Easley raised the minimum proficiency threshold to 60%.

To learn why the schools were failing and develop recommendations for improving them, during 2005-06 NCDPI sent assessment teams to 35 high schools whose performance composites had fallen below 60% for two consecutive years. At the direction of UNC system President Erskine Bowles, from summer 2006 through spring 2007 UNC-Chapel Hill's Kenan-Flagler Business School collaborated with the UNC system-based Principal's Executive Program (PEP) to provide a 24-day program of professional development to leadership teams for about half of the 35 high schools. Kenan-Flagler's contribution focused on general management skills plus development of an entrepreneurial fund-raising plan while PEP focused on instruction and instructional monitoring.

Participants found the former a distraction from the central tasks of school turnaround and the latter far more helpful. They also complained that the program removed them from their schools for far too many days. So the program for the second half of the 35 high schools, offered from December through June 2007, was cut to 13 days, focusing more squarely on instruction, instructional supervision, teacher recruitment and retention, data-driven decision-making, and other topics closely related to school operation and performance. Rather than developing business plans for entrepreneurial initiatives, participants worked on plans responsive to NCDPI's Framework for Action. Soon thereafter, the state legislature shifted budgetary control over the PD program from the University system to the NCDPI, and the program for the remaining 31 high schools, served during the summer of 2007 and the 2007-08 school year, focused still more squarely on school functions, with even closer links to the NCDPI's planning framework for turnaround schools.

The Framework for Action required all 66 high schools to develop formal plans to address key issues or functions including ninth grade transition, formative assessment, support for struggling students, literacy needs, professional development based on student achievement data, professional learning community, community involvement, and alignment of all school processes and procedures to support student

achievement. After the NCDPI reshaped the PD program, NCDPI-contracted “Leadership Facilitators” (school coaches) helped the turnaround schools develop their plans. They followed up with weekly visits to the schools, providing advice and technical assistance throughout the turnaround process. Leadership Facilitators were former administrators with successful experience in schools serving similarly challenging student populations. As implementation of the plans began, these school-level coaches were joined by Instructional Facilitators, accomplished teachers (many National Board Certified) who worked with teachers at the classroom level. Instructional Facilitators were spread more thinly, assisting a given teacher about once a month.

In many of the turnaround high schools, the NCDPI partnered with other organizations, including the North Carolina New Schools Project and selected comprehensive school reform models. Initiated by the Governor in 2003 to support high school reform, the New Schools Project helped “redesign” 13 of the 66 schools, dividing them into independent, theme-based academies and providing professional development and coaching that was broadly similar to the PD and coaching already described. In all but 3 schools, New Schools’ efforts were undertaken in collaboration with the NCDPI. The remaining 53 schools were strongly urged to adopt one of nine comprehensive school reform models and the majority did so, but as described later in this paper, virtually all soon abandoned their chosen CSR model in favor of a design of their own making structured around the Framework for Action, incorporating and adapting a CSR component or two at most.

Methods

To assess the impact of the NCDPI and its partners’ interventions during the 2006-2010 period, we used a difference-in-differences design comparing the estimated test score gains in the 66 turnaround high schools with those in the 64 high schools most similar to them, controlling for numerous school and student variables. As indicated earlier, we also compared the average improvement in the two sets of schools’ performance composites. (For a detailed account of impact assessment methods, see Henry, Rose, & Campbell, 2012.)

Having found that the Turnaround Schools Program did exert a significant effect on test score gains and average improvement in performance composites, but with wide variation in the margin of improvement, we conducted the qualitative study featured in the present paper. At the high school level, we selected twelve schools which had made contrasting levels of progress. We began by ranking schools by their 2009–10 performance composite. With the rankings in hand, we first selected schools that had made consistent progress from 2007–08 to 2008–09 and from 2008–09 to 2009–10 and identified those with the highest levels of total improvement from 2007–08 to 2009–10 (some 25 points or more). Then we selected a set that had made significant but more moderate levels of progress, averaging about 15 points, and a set that had either worsened or had improved by less than 5 points. To complete sample selection, we chose schools so that the total set reflected variation in community context (urban vs. rural), region of the state, school size, ethnic composition, and poverty (free and reduced-price lunch percentages). At the high school level, we chose nine schools using the transformation approach (emphasizing change within the existing school structure) and three that had undergone redesign, which involved breaking up the schools into smaller theme-based academies.

To learn about the dynamics accounting for the improvement or stalemate at each school, we interviewed the principal, assistant principal, five to seven teachers, and any other personnel whom the principals identified as especially knowledgeable about the school's experience during the turnaround process. In addition, we interviewed the central office administrators who had worked most closely with the school during turnaround, as well as the school leadership facilitator and, when possible, one or more of the instructional facilitators. We supplemented our interview-based knowledge of the facilitators' work by reviewing a sample of the reports they filed with NCDPI.

Parallel semi-structured interview protocols for each of these categories of interviewees asked about the reasons for the school's initial low performance; the steps the school had taken to improve and which of these were particularly effective or ineffective; what assistance they had received along the way and the degree to which the assistance was genuinely helpful; what obstacles to improvement they had encountered and how they had surmounted the obstacles, if indeed they had done so; and whether the school now had the capacity to continue to improve and perform at higher levels. Most interviews were recorded and transcribed. In some schools, interviewees declined to be recorded, and in these cases, we relied on notes taken during the interviews.

On the basis of the transcriptions and notes, we wrote field notes on each school in a common format, not only capturing the main themes across responses to each of our questions, but also including quotations that expressed the themes in striking or economical ways as well as anecdotes that would help us illustrate them. We then reduced the field notes on each school to a one- or two-page summary table. Using these summary tables, we identified similarities and contrasts across schools, first by level (high, middle, and elementary schools) and then across levels. We organized these themes into a graphic model to portray the dynamics of the turnaround process in schools that made significant progress. The graphic model (see Figure 1 on p. 10, below) served as the primary organizer for the account of the change process we developed. Before describing the process in detail, I first enlarge a bit on the nature of "scaffolded craftsmanship."

Scaffolded Craftsmanship

Although all of the low-achieving high schools were encouraged to choose and adopt a comprehensive school reform (CSR) model and many did so, implementation of externally designed models was not a central feature of the turnaround process in these schools. Indeed, after a year or two of struggling to implement a CSR model, all but one of the schools in our sample that had adopted an externally designed CSR model abandoned it and substituted their own locally developed plans. They incorporated a selected component or two of the CSR models, but treated the parts as building blocks, adapting them to fit into locally developed designs rather than carrying out model developers' blueprints comprehensively or faithfully.

The leaders of the NCDPI's Turnaround Schools program confirmed that this pattern was not limited our qualitative sample but extended to the full set of turnaround high schools that adopted CSR models. The CSR models contributed components, ideas, and skills to the schools they served, but anything approaching full implementation of the models was rare. The Director of the Turnaround Schools Program theorized that the models' assistance providers often focused too rigidly on compliant

implementation of surface features of the models rather than thinking primarily in terms of the underlying functions that the components were designed to serve and adjusting them to fit local circumstances. This alienated many teachers in the turnaround high schools, communicating a sense that model representatives cared more about their models than about the teachers' challenges and student learning in the adopting schools. In addition, the models may have been inadequately funded to support the level of on-site presence necessary to gain teachers' trust and foster full comprehension of the rationale underlying model components, and some model components proved ill-suited to the mostly small, rural high schools where they were adopted.

The contrasting experience of the one school in our sample that did fully implement its chosen model had support from the North Carolina New Schools Project, an NC-based intermediary which was familiar with local realities and located close enough to visit the school more regularly. Even more importantly, the adopter was in essence an entirely new school, built up grade by grade with a principal, teachers, and students specifically recruited for their commitment to implementing the model. In the other model-adopting schools we studied, fully implementing a CSR model would have involved changing an existing organization with an established faculty, structure, norms, and routines. It appears to have been substantially easier to implement a CSR design by starting anew rather than by trying to change an existing school.

If model implementation is not an accurate way to characterize the turnaround process, what is? The director of the Turnaround Schools Program put it this way:

“It is very complicated. It is a lot of what I call *craft work*. It's really using processes and procedures [thoughtfully]. Where you put kids, how you hire and develop your teaching population, then your other systems, like how you manage student behavior, how you manage time, how you manage instructional practice—all those systems. In a low-achieving school, generally you find none of them are functioning very well. So you have to rebuild them. But if you get the right routines flowing in a school ... each piece kind of fits together.”

Our research confirmed this characterization of the process. Rather than model implementation, a more accurate term for the turnaround process would be something like *scaffolded craftsmanship*. That is, improvement came through painstaking, piece-by-piece reconstruction, guided or “scaffolded” by NCDPI and/or the NC New Schools Project facilitators but depending at least equally on the energy, commitment, and inventiveness of local educators. As our interviewees described the turnaround process, 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. Throughout, of course, they also had to go on handling the daily tasks of “keeping school” while they were rebuilding the school.

If it is illuminating to view the turnaround process as scaffolded craftsmanship, it is also helpful to see it as a process of learning. That is, principals and teachers in the improved schools in our sample were learning *how* to construct and operate a well-functioning school as they were constructing it. Their learning process seems nicely captured in contemporary learning theorists' notion of *cognitive apprenticeship* (See, for example, Collins, Brown, & Newman, 1987; Brown, Collins, & Duguid, 1989;

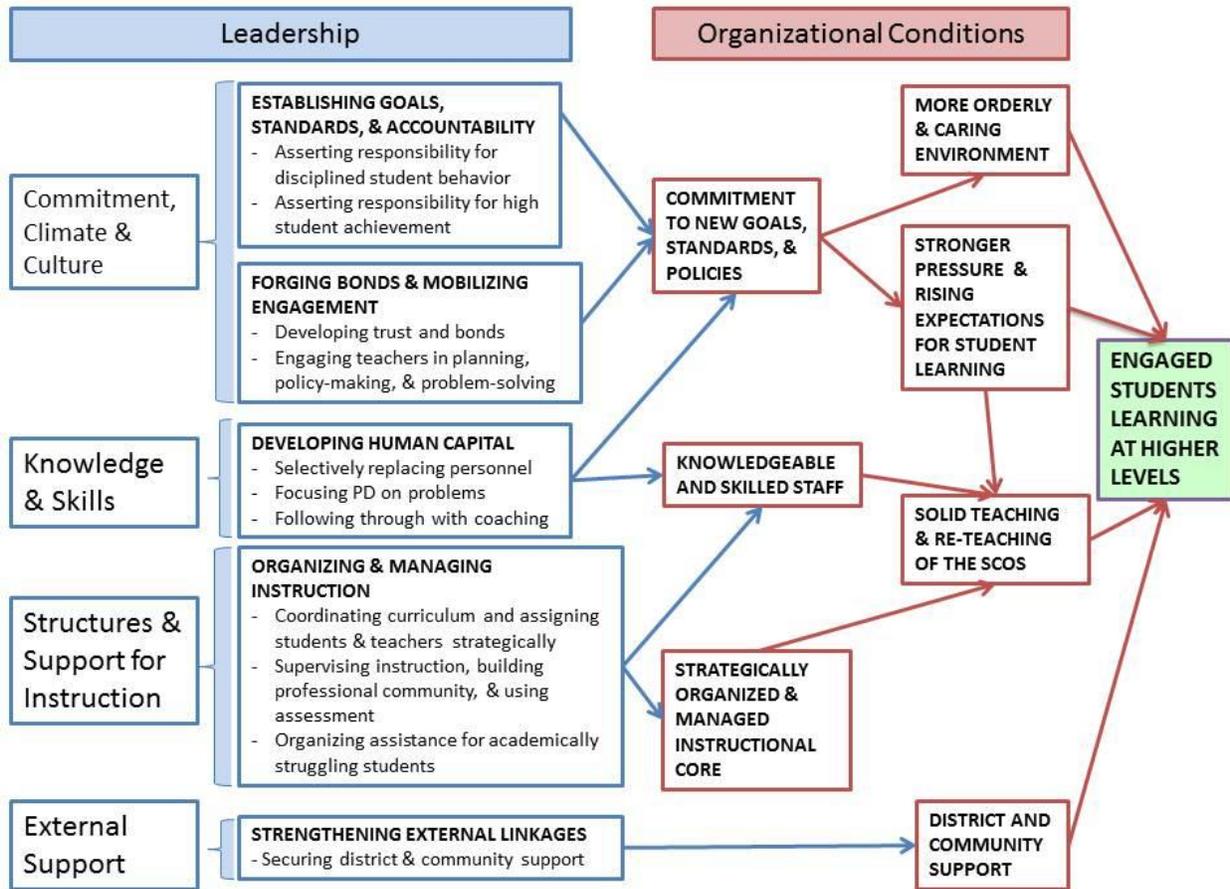
Collins, Brown, & Holum, 1991). Such apprenticeships are “cognitive” in the sense that they involve the acquisition of new ideas and intellectual skills rather than manual arts or crafts. So, the content of what is learned differs from the classical craft apprenticeship. But the processes of teaching and learning resemble those in the classical craft apprenticeship. An accomplished practitioner teaches novices by first modeling and explaining good practice, then guiding and coaching the novices as they try it for themselves, and gradually withdrawing support as they gain skill and confidence. New skills are acquired right in the context of use, “scaffolded” by the accomplished practitioner. Consistent with the concept of cognitive apprenticeship, principals and teachers in turnaround schools learned largely from accomplished practitioners in the context of actual use—that is, from leadership and instructional facilitators (themselves accomplished principals and teachers) modeling and coaching good practice right in their schools and classrooms. So, school turnaround entailed a scaffolded process of professional learning supporting a process of reconstruction.

We cannot be certain how much of the credit for the improvement to attribute to the inventiveness of the school personnel themselves and how much to attribute to the intervention by the NCDPI and its partners in the turnaround process. When they told the story of their school’s turnaround, the principals and teachers themselves were the protagonists, at center stage. NCDPI and other external support organizations were in the background. Teachers would often credit their principals with kick-starting the process, putting on the pressure for change, establishing discipline, raising morale, and providing ongoing support, but for the most part they mentioned help from external organizations or facilitators only later in the interviews. When asked explicitly about the types of assistance they had received, principals and teachers generally praised the coaching provided by the NCDPI and its partners, but only occasionally attributed particular organizational arrangements or practices to them.

In an early interview, the NCDPI Turnaround Schools Program Director predicted that local educators would explain their progress in terms of what they themselves had done to improve performance, “and they will be right about that. When all is said and done, they are the ones running these schools and teaching the kids, and what they do is what actually makes the difference.” Local educators have to own the process, she explained. Accordingly, as I document in detail in the sections below, NCDPI turnaround personnel deliberately played a background role, suggesting and modeling and coaching, not taking charge, directing, or starring. Yet in the improved high schools, the turnaround process was clearly shaped to substantial, if varying, degrees by the Framework for Action and the professional development and coaching that NCDPI and its partners provided.

In sum, in the improved schools we studied, the turnaround process was not a matter of engineering, of initial external design and subsequent implementation, but a non-linear process of planning, inventing, adjusting, and re-planning as well as a process of learning, doing, and learning from doing. The order of development varied greatly from school to school, based partly on facilitators’ and principals’ sense of the strengths and weaknesses of a school and the best strategic focus for a given school at a given time, but the improvement generally began with the installation of new leadership and involved four main components: (1) new commitment, climate, and culture, (2) improved knowledge and skills, (3) strategically organized and managed processes of instruction, and (4) strengthened external linkages. Figure 1 on the following page provides an overview of the dynamics of improvement.

Figure 1. The School Turnaround Process



* Note: In the Box, “Solid teaching and re-teaching of the SCOS,” SCOS refers to the North Carolina Standard Course of Study.

Commitment, Climate, and Culture: Establishing Goals, Standards, & Accountability

At their low ebb, most of the improved high schools were challenged simultaneously by serious problems of discipline and low expectations for student achievement, and the early actions that successful leaders took combined attention to both issues. Interestingly, action on both issues generally involved a combination of tough assertion on the one hand and active efforts to forge bonds and mobilize engagement on the other. Over time, these processes led to the creation of a more orderly and caring environment and to the establishment of a climate of stronger pressure and rising expectations for student learning.

Responsibility for Disciplined Student Behavior

The clearest illustration of how a more orderly and caring environment was created comes from a small rural high school that was plagued for more than 20 years by conflict between students from two communities that had been consolidated into this county-wide facility. The school was overwhelmingly African-American, so the conflict was based not on racial differences, but solely on long-smoldering enmity between the two communities. There were small-scale conflicts and scuffles almost daily, and periodically, large group fights and near riots would erupt. The atmosphere of conflict and disorder permeated halls and classrooms throughout the school and contributed to rapid turnover of principals as well as teachers.

Leadership on this issue came from an unexpected quarter. A man who had grown up in the county, left to pursue a military career, and returned to join the local police force took note of the problems in the high school. Believing that his military and police experience gave him a special perspective on the issue, he approached the chairman of the school board with his ideas for addressing it. The school board chair asked him to lay out a more specific plan, which the chair found persuasive enough to hire the man to implement it.

As suggested above, the plan had two sides, carried out in cooperation with a responsive principal. First, the new chief of security added two more officers to the two already in place, deployed all four to walk the halls, and instituted a zero-tolerance policy against fights. Offenders would not simply be disciplined by the school, but arrested, taken to jail, charged with crimes, and prosecuted. At the same time, however, the security officers were instructed to chat with students, get to know them personally, eat lunch with them, attend sports events they played in, and ask the students to come to security officers, teachers, or the principal with information about developing conflicts or planned fights. Teachers were also asked to show more of a presence in the halls and to listen for signs of trouble in their classrooms. The combination of a get-tough policy and relationship building worked. After an arrest or two, students began to approach the staff to head off fights and talk through the conflicts that would previously have sparked them.

The leadership provided by the school's chief of security was unusual, but the serious discipline problems stemming from inter-community conflict were not. They were common in the consolidated rural high schools in our sample, and when they were addressed successfully, it was through similar approaches that combined hard-nosed enforcement with relationship building.

Responsibility for High Student Achievement

The African-American principal of a small rural high school whose performance composite had soared 28 points in only two years began a sentence with a deadpan poker face, "I don't want to brag, but ..."—and here he could not resist breaking suddenly into a brilliant smile—"... my teachers love me." Our subsequent interviews with teachers bore him out. His teachers did love him. Teachers could not contain their own smiles when they talked about the principal: how hard he worked, how well he knew the students, how often he was in their classrooms, how well he listened and responded to their problems and needs, how he had handled a certain problem with a parent, and on and on.

Yet on the whiteboard behind the principal as we interviewed him, we could see teachers' End-of-Course (EOC) examination passing rates and average scores displayed, together with the goals that the principal and each teacher had jointly set for the number of students in each class who would pass the exam this year. He explained that early in a semester, he sat down with each teacher of an EOC course to review her students' prior End-of-Grade and End-of-Course scores and the prediction for each student's likely score in the course produced by EVAAS software, a SAS product derived from Sanders' Education Value Added Assessment System. They would then discuss what the teacher and others would have to do to help the student make a passing score, focusing especially on students who were not predicted to pass. After reviewing the prospects and requirements for each student to pass, they would set a goal for the number of students the teacher should be able to get over the bar. Periodically during the year, they would meet to review benchmark and formative assessment results, not to revise the goals they had set but to adjust the program of extra support required to meet the goals. Because the goals set for every teacher are displayed on this public whiteboard, each can compare her own goals—and, at the end of the semester, her own students' performance relative to the goals—with those of other teachers in the same and other EOC courses. This spurred competition among teachers, but it also prompted teachers to seek help from colleagues with better success rates.

As teachers' tales about the principal suggested, part of his success in commanding their loyalty and mobilizing their support seemed to derive from his hard work, dedication, and readiness to listen to the teachers' problems, needs, and ideas for addressing them. Their stories about him showed that in their view, he treated them with respect, cared about them as people and not solely as cogs in the test score machine, was motivated primarily by a concern for student learning rather than his own advancement, followed through in a competent way on the decisions and plans they made together, and evaluated teachers evenhandedly rather than playing favorites. He was in their classrooms on a regular basis, not only observing but also making useful suggestions for improvement. When a math teacher had to be out of school, he often taught her classes himself. In one of the regular reports filed by NCDPI's leadership facilitator, she recounted the development of the school's Framework for Action during a retreat that she facilitated the previous summer. What struck her most about the process was that on several occasions, the principal accepted decisions of his leadership team even when they went against his personal preferences. As the principal recalled:

Leaving that leadership retreat, those teachers felt pretty much empowered—that it wasn't the principal's ideas that they have to carry through. They were ... their ideas. So ... they were able to come back and go to the departments and be able to sell it because they had input throughout the process. And we set up our goal. We said at the end of the year, we're going to be at 70% with students passing the EOCs.

A major challenge in establishing higher expectations for academic performance was overcoming the ingrained belief that poor or mediocre performance was the best that could be expected of students. Principals' assertion of teachers' responsibility for improved student achievement seems to have been pivotal in breaking through this barrier. The account that one teacher gave us was echoed in other improved schools:

But when the new administration came in and put just as much pressure on the teachers as the teachers put on the students, that's really when the change started taking place. And yes, it was pressure. But after the end of last year, we saw, "Okay, wow, this is possible! We did raise scores." So at the end of the first

semester, now we're like, "Okay, well, we can go higher." And now the test score expectation for this end of year is way above anything that any of us would have even imagined three years ago. [Before the change, there was] ... a mindset that excuses would be taken. And from my first year to the second, [my attitude shifted] ... from why this isn't my fault that my students aren't doing well to "I'm taking responsibility for my students' success and their failures, then I'm going to work from there."

It is often assumed that attitudes and expectations shape behavior. But in the improved schools in our sample, interviewees told a different story: Intensified demands on teachers led directly to more demands on students, which led to unanticipated levels of improvement in test score performance, leading in turn to an exhilarating sense that far more was possible than teachers, students, and others had imagined. In this sense, changes in teachers' and then students' behavior brought about the elevation of expectations just as much as higher expectations brought about changes in behavior. Or, perhaps it is more accurate to say that in the formerly low-achieving schools in our sample, change came in waves, with the initial assertion of accountability and mobilization of engagement leading to changes in teacher and student behavior, issuing in improved outcomes that inspired still higher expectations.

Evidence from our interviews across schools suggests that this is how a culture of higher expectations was made. By "culture," I refer to beliefs, expectations, and norms that have a force of their own in shaping teachers' and students' ongoing behavior, distinct from external pressures. Accountability pressures within the context of strong relationships and engagement of teachers in planning and problem solving generated commitment to new goals and standards for student behavior and learning. Similarly, strong and consistently enforced discipline policies together with energetic efforts to cultivate caring relationships with students combined to help schools create safer and more orderly environments. But while the initial mobilization of commitment seems to have been crucial, it does not seem to have been sufficient to complete the culture-building process. It was when teachers told themselves, "Okay, wow, this is possible" and "Okay, well, we can go higher"—a development that was recognized and reported across the improved schools—that a new culture had started to take shape.

Knowledge and Skills: Developing Human Capital

Personnel Replacement

As indicated earlier, in the formerly low-achieving high schools that had made substantial progress, the process of improvement generally began with the installation of a new principal. A common image of the "turnaround principal" is of an energetic, expansive dynamo who shapes up a lagging school by force of personality. But in only one case did a principal conform closely to this image—the principal who swept into the school, tore up the existing Framework for Action plan, wrote his own, persuaded the School Improvement Team to endorse it, and set about getting it into practice. In general, the principals of improved high schools seemed quieter people, distinguished more by their ability to develop rapport with teachers and students, by their knowledge of instruction, and by an unshowy determination to improve academic performance than by an outgoing, expressive personality.

This is not to say, however, that they were people of low energy. On the contrary, they were reported to

arrive early, work late, know every student's name and many details about them, work the halls talking with students and teachers, get into classrooms daily, hold teachers personally responsible for helping to meet school goals and standards, and make tough decisions about teachers who failed to respond to suggestions and pressure for improvement. The district administrators who hired them emphasized knowledge of and experience in managing instruction as their primary reasons for choosing these principals. The day of picking principals mainly for an ability to manage operations and keep order were long gone, they told us. If the state's ABCs accountability system and No Child Left Behind had not made this clear, Judge Manning's thunderous denunciations of low-performing schools in the *Leandro* case certainly had.

In most of the improved high schools, replacement of a substantial number of teachers came soon after a new principal was installed. In addition to holding teachers responsible for student achievement and for enforcing discipline while simultaneously cultivating close, trusting relationships with them, successful principals mobilized commitment to their reform agenda by replacing a substantial number of teachers. The principals of the improved schools had hired as many as half of the teachers in the school, and in one case, all of them. In some instances, the vacancies they filled stemmed simply from the high rates of attrition in these initially disorderly, low-achieving schools. In others, principals deliberately created vacancies by encouraging poor performers to "retire or move on." In the small rural school with the well-loved principal featured above, about a dozen teachers left at the end of the school year before he came in, and the principal took an active role in selecting their replacements, most of them young new teachers. In another rural high school that almost doubled its performance composite over a two-year period, rising from about 36% proficient to 70% proficient, approximately half of the faculty was replaced at the initiative of the superintendent, and virtually all of the new hires came in through the Teach for America program. In one small urban school created by "redesigning" a comprehensive high school, the entire faculty was new, all hand-selected by the principal. In some cases, the number of teachers replaced was smaller. One rural school had made sharp improvement (15 percentage points in one semester) with the help of a handful of new teachers and an assistant principal recruited by the new principal. By all accounts, the new teachers brought new energy for reform into the schools.

As indicated earlier, in two cases the vacancies were created through deliberate action. In the remainder of the improved schools, the first wave of teacher replacements was a side effect of serious discipline and morale problems, sometimes exacerbated by principals trying to get control of the school and raise scores through stern unilateral action alone. Many of the new teachers in these mass replacements were new to teaching as well as new to the school. This was true not only in the case of the wholesale engagement of Teach For America teachers, but also in schools that suffered extensive departures due to discipline and morale problems: "We were all babies," one teacher said of the group who entered the school when he did.

Particularly during their first two or three years, inexperienced teachers produce lower test score results than their more experienced counterparts (Clotfelter, Ladd, & Vigdor, 2007; Henry et al., 2010; Hanushek, Hain, O'Brien, & Rivkin, 2005; Kain, Rockoff, & Staiger, 2006; Rivkin, Hanushek, & Kain, 2001; Rockoff, 2004). Yet the sharp rise in performance composites at schools with many new teachers suggests that with strong professional development and coaching, plus a well-developed structure and supports, new teachers can make a positive contribution to a school's performance. Across the schools in our sample, teachers credited extensive professional development from multiple sources, including

NCDPI, the New Schools Project, and in one case, the Teach For America program, for bringing bright, energetic, but inexperienced teachers quickly up to speed, sometimes enabling them to outperform more experienced teachers.

The replacement of teachers in improving schools did not end with the initial wave but continued with the deliberate discharge of underperforming teachers who failed to respond to pressure and assistance to improve. A prominent feature of the improvement process in these schools was frequent classroom observation by principals, assistant principals, and other administrators, leadership facilitators, and instructional facilitators. Reports filed by leadership facilitators document numerous concerned discussions with principals about teachers with lagging performance. Facilitators' reports initially recounted the feedback and suggestions that they had provided, but when teachers showed no progress or outright resistance, discussions turned toward the need for principals to put recalcitrant teachers on action plans and eventually to encourage them to find new jobs or retire.

In some cases, it was clear that principals took action on teachers with lagging performance only when pressed them to do so. An NCDPI official told one principal, "You need to get rid of these teachers. They are killing your scores." The principal acknowledged the problem: "I knew she was right. I had known for some time that I should do it. I guess the pressure from her made me do what I knew all along I should do." He told the teachers, "It's time for you to retire or move on," and they did so largely without protest. Although many NC school administrators complain that it is very difficult to fire a tenured teacher—and in terms of formal procedure, it is—in school after school, teachers with lagging scores, poor classroom observation results, and a reluctance to change were reported to respond to low evaluations, action plans, and pressure by retiring or moving on.

But creating a vacancy was only step one in replacing a low-performing teacher. The harder problem was recruiting and hiring a replacement with stronger commitment and skills. Asked how he managed to do so, one principal said, "I can't compete on money, so I sell the mission and a chance to work in a school that is on the move." By "the mission," he meant the opportunity to give low-income and minority students a good education and a fighting chance in life. As his leadership facilitator remarked, "Good teachers don't allow themselves to be in places where there is no stable leadership . . . But if teachers see that a school is improving achievement, they want to be part of it." In several schools, other incentives were provided, including an increase in the local supplement, the chance to teach relatively small classes, and a district-sponsored apartment complex for teachers. But across the improved schools, the most compelling draw seemed to be the opportunity to pursue the mission in a school that was on the move.

Professional Development

As described earlier, in 2006–07 and 2007–08 the Principals' Executive Program (PEP) partnered with UNC-Chapel Hill's Kenan-Flagler School of Business to provide extensive professional development to leadership teams from turnaround high schools. After budgetary and managerial control were transferred from the university system to the NCDPI, coordination between the professional development (PD) and NCDPI's Framework for Action improved substantially, with NCDPI's leadership facilitators helping the schools develop their Framework for Action plans. After a school's initial year in turnaround, PD was provided by the Turnaround Schools program itself or by the Mid-continent Regional Education Laboratory (McREL), one of several organizations that DST drew upon to extend its own capacity to support turnaround schools. In addition, schools that adopted comprehensive school reform models

received professional development designed to support model implementation.

Across the high schools in our sample, interviewees told us that PD from these sources played an important role in the improvement process. Leadership teams generally found the PEP-Kenan-Flagler PD helpful, especially the sessions closely connected with curriculum, instruction, and assessment. An assistant superintendent in one small city district credited the PD with focusing the principal of an improved high school in productive directions: “I think it helped [principal’s name] to see how to guide the staff. Without that training, I’m not sure he would have known which direction to go.” She went on to cite sessions on data use (“how to read and understand it and what to do with the data once you have got it”), professional learning communities (“how to involve his teachers in real discussions of what they were doing”), and networking among principals (“Everybody had the same problems. ‘What are you doing about this?’ Just sharing ideas about what works, what doesn’t work”).

After the initial centralized PEP-Kenan-Flagler PD, subsequent PD efforts focused on the specific needs of each school rather than more rounds of centralized sessions. In most high schools, we heard praise for the PD provided by NCDPI and the New Schools Project, remarks about the PD provided by developers of comprehensive school reform models were more mixed. As indicated earlier, teachers in several schools saw their model developers’ representatives as uninformed about the realities they faced, and at times, as condescending. In these schools, teachers described the periodic workshops as drudgery, and their own participation as just going through the motions for the sake of compliance.

Coaching and School-Specific Professional Development

Leadership facilitators were recruited for their experience as successful principals and trained to work in a facilitative rather than a directive way. They generally visited each of their assigned schools once a week. Their reports show that they performed a range of functions, often beginning by carrying out their own needs assessments by reviewing data on the school, interviewing principals and teachers, observing in classrooms, and moving about the school informally. A typical leadership facilitator visit might involve a brief orienting conversation with the principal, several classroom observations, and participation in a School Improvement Team meeting or a meeting with a small group of teachers and an assistant principal working on a specific problem, such as difficulties in the in-school suspension program or how to improve tutoring arrangements for struggling students. One leadership facilitator’s reports show that over the course of a school year, she observed for a full period in the classroom of every teacher in the school and met with each teacher afterward to provide feedback and make suggestions. At the end of a day, leadership facilitators usually met again with principals to discuss what they had learned. As indicated earlier, a common concern addressed during discussions with principals was how to deal with weak teachers.

Leadership facilitators sometimes served as neutral discussion leaders during leadership team and School Improvement Team meetings as well as planning retreats. In addition, they took the initiative to organize special meetings—“leadership discussions”—to address problems they had identified. Facilitators’ written reports also show them providing tools such as classroom observation protocols and common lesson planning formats to principals and teachers, modeling the use of the tools in joint instructional monitoring and feedback sessions, and then following up by observing and coaching principals and teachers as they used the tools. They suggested ways of handling important tasks, such as reviewing the data on incoming ninth graders and developing a master schedule that would assign them to appropriate

courses and teachers while also providing their teachers with common planning time. The facilitators' reports also show them working closely with testing coordinators to ensure that NC Wise, the state's new student information system, would come on line properly in the school and on how the data from End-of-Course, benchmark, and formative assessments might be reported to and interpreted for teachers. Facilitators' focus on the master schedule, NC Wise, and formative assessment calls to mind the Turnaround Schools Program Director's comment that in many low-achieving schools, "none of these systems work very well."

Another function served by leadership facilitators was to support follow-through on the schools' Framework for Action plans. As one NCDPI manager put it, "You need to see what is really going on and remind them of the plan. 'We agreed that we would do these three things, and you're getting away from the plan.' You need to remind them on a regular basis ... to keep people on track in really low-capacity schools." From the written reports that the leadership facilitators filed and the recollections of our interviewees, however, it appears that the facilitators virtually never tried to dictate actions to either principals or others. In contrast, once they had discussed a problem several times with a principal, the NCDPI officials who supervised the facilitators sometimes urged certain actions in a very pointed way, an example being the supervisor who told a principal point-blank, "You need to get rid of these teachers. They are killing your scores."

Instructional facilitators were selected for recent experience as successful teachers. Many were National Board Certified. Instructional facilitators provided assistance to individual teachers and groups of teachers in their assigned subject areas. Because resource constraints limited the number of instructional facilitators on staff, instructional facilitators were unable to visit schools as frequently as leadership facilitators—once or twice a month at most, rather than weekly. Reports filed by instructional facilitators also reflect more variation in the frequency of visits across facilitators, schools, and time. Most high school teachers' comments about instructional facilitators were general but positive. In one moderately improved high school, teachers recalled that two of the instructional facilitators initially assigned to work with them were too directive and harsh, but were soon replaced by people who were more congenial to work with. The only other complaints we heard from high school teachers about instructional facilitators were about seeing them too seldom. One NCDPI supervisor conceded that resources were too limited to provide the depth and frequency of instructional facilitation that she thought necessary in the lowest capacity schools. She herself typically managed instructional facilitators serving a total of 18 schools.

Particularly when working with new teachers, instructional facilitators often focused on the NC Standard Course of Study, breaking it down goal by goal and objective by objective to clarify exactly what teachers should be focusing on. Instructional facilitators taught demonstration lessons, observed as teachers gave the new techniques or material a try, and provided a combination of encouragement and corrective feedback. In one school, an instructional facilitator team-taught with the chair of the science department, leading to major improvements in science instruction: "Our significant change came when [name of facilitator] was working with us in 2008–09." According to the principal of an improved school, the demonstration lessons and the fact that the instructional facilitators were themselves practicing teachers recently out of the classroom gave them credibility and leverage.

On request and sometimes at their own initiative, instructional facilitators brought in classroom materials and lesson plans to shore up observed weaknesses. They also helped teachers understand End-of-Course, benchmark, and formative assessment data on their students' performance and suggested strategies to deal

with objectives on which many students scored poorly. On occasion, instructional facilitators offered targeted professional development: “I noticed that one of the things we needed help with was differentiation [of instruction]... All of the coaches came in together and did that workshop for us.” Like the leadership facilitators, instructional facilitators often met toward the end of a day with principals or assistant principals to discuss their observations.

Structures and Support for Instruction: Organizing and Managing Instruction

Coordinating Curriculum and Assigning Students and Teachers Strategically

The improved schools in our sample used a variety of strategies to shepherd individual students through curricular paths matched to their evolving skills and to ensure that students encountered solid teaching and re-teaching along the path to proficiency. This sounds simple, but it required the construction of many distinct components, each carefully crafted to perform its function within a coordinated whole. One key to improvement was to break the curriculum down into course-sized chunks leading up to as well as through the objectives in the NC Standard Course of Study, then route individual students through the right courses in the right order. The right courses in the right order were those that a given student could handle at each point along the way, provided that s/he gave a solid effort.

NCDPI’s High School Framework for Action required that schools in Turnaround develop and implement plans for “Freshman Transition Programs” as an important step in this process. The logic was simple: “If the youngsters are not ready for Algebra I and English I, it’s obvious that they are not going to be successful in those courses,” one leadership facilitator said as he began the story of how a rural school created its Freshman Academy, a unit designed to support students during the transition from middle to high school. In response to encouragement to adopt “a reform program,” the school considered several possibilities and settled on the Talent Development High School (TDHS) model, in large measure because it included a “strategic reading” program as well as a program to prepare students for algebra. The school eventually abandoned the TDHS model as an integral whole, but retained the Freshman Academy component with its strategic reading and algebra prep programs.

Another high school that eventually achieved a performance composite above 90% tried the Freshman Academy idea but foundered in implementing it. As one teacher recalled, “We had started the Freshman Academy, and scores went up immediately because all of the best teachers were in the academy. But the next year, we put a lot of inexperienced teachers in the academy [to even things out], and scores went down. It was just a huge debacle.” Yet the school did eventually implement a successful freshman transition program, retaining “ramp up” courses designed for students coming in with weak skills but abandoning the separate academy structure. Two of the substantially improved schools in our sample operated solid Freshman Academies, but equally common were variants on the academy approach that combined ramp-up reading and mathematics courses with seminars emphasizing study skills and socialization into the work habits and behavior required to succeed in high school.

In our initial interviews, the Director of NCDPI’s Turnaround Schools Program argued that what was essential to improved performance was not whether a specific model or organizational form is implemented, but that the functions featured in the Framework of Action are implemented. Thus, the

Framework for Action called not for a Freshman Academy, but for a “Plan for Ninth Grade Transition.” Our school interviews bore out the wisdom of emphasizing essential functions rather than specific organizational forms. But as one principal explained, crafting the details of the transition support was crucial:

What is so essential is exactly what you teach. In Algebra I, [the NC Standard Course of Study specifies] four goals. When you look at the End of Course exam ... you may have 60% of the test come from Goal 3 and Goal 4. So we design our curriculum in a way that the Foundations of Algebra [students] will get Goal 3 and Goal 4. [Further,] the pacing guide is crucial. You may have a bridge course, but if it does not have a good pacing guide, it’s a failure. [In my former district] I’ve seen students go into Algebra I A and 1B still struggling because of the way the pacing guide was designed.

Yet detailed planning of the courses comprising the various pathways only prepared the way for another essential step: strategic assignment of students and teachers. In each of the substantially improved schools, principals told of long summer days working with counselors and assistant principals to choose an appropriate series of courses for each individual student. They used each student’s record, including but not limited to test data, as well as personal knowledge of teachers and students to make the best set of matches. Construction of the master schedule along with student assignment rosters was a complex task that required juggling a variety of considerations, thinking not just semester by semester but over full academic years, at the same time anticipating the courses that students would need in future years. The inevitable mistakes and unanticipated developments generally required what the principal of one sharply improved school called his “mid-season adjustment period” over the Christmas break. But principals and leadership facilitators consistently pointed to the master schedule as a key instrument for improved academic performance. One principal referred to the painstaking assignment of individual students to appropriate courses and teachers as “hand-scheduling.”

Even when students were hand-scheduled to ramp up through strategic reading and other courses designed to bolster weak entering skills, many still needed additional preparation to read material in EOC-tested courses effectively. So responding to the Framework for Action’s call for “a plan for identifying and addressing literacy issues and needs” required additional efforts to develop students’ content-specific reading skills. Yet as an English teacher in a moderately improved high school told us, “I had never been trained in how to teach reading. We had just assumed that kids would come to us with reading skills.” But after the “wakeup call from Manning” and the Framework for Action requirement, one teacher recalled, it was “literacy in math, literacy in science, literacy in history, literacy in shop, literacy in Phys Ed. We all got involved in teaching literacy.” The district’s central office as well as NCDPI and its facilitators provided training in teaching literacy in the content areas. The instructional facilitators in particular provided concrete, subject-specific suggestions and materials.

Supervising Instruction, Building Professional Community, and Using Assessment

Having constructed curricular pathways designed for students of varying skill levels and having “hand-scheduled” individual students through them so that they would encounter the most effective teachers available to teach each course, the improved schools in our sample did not then leave teachers on their own to teach as best they could. They took a number of additional steps to ensure that the NC Standard Course of Study for each course was actually taught, taught well, and taught again when necessary. With the support of leadership and instructional facilitators, principals structured and supervised instruction

closely, organized teachers into collaborative groups (professional learning communities), and promoted the use of benchmark and formative assessment to check students' learning regularly, to guide assistance for struggling students, and to shore up weak spots in teaching.

Interviews with central office staff, principals, and leadership facilitators indicate that when the turnaround process began, little real teaching was going on in many classrooms. The following excerpt from a leadership facilitator's report illustrates a common occurrence:

My first observation today was in the classroom of a science teacher whom [the principal] and [the school's instructional coordinator], had requested that I observe. I saw no teaching. A quiz lasted for half the period and for the remaining 45 minutes, the teacher instructed the students to read the next chapter. He did point out several things they should remember. When students became a little chatty, he had them answer questions at the end of the chapter. I understand the administrators' concerns....

As the excerpt indicates, classroom observations were frequent in this school, and this teacher had received special attention. Yet as the facilitators observed, he exhibited essentially "no teaching." This was not an isolated case. As a central office administrator observed about another school, "We always got the sense that teachers were not really teaching the Standard Course of Study. If they were teaching at all, they were teaching whatever they enjoyed teaching."

One step toward assuring that the Standard Course of Study was taught was simply to stress its importance and help teachers—especially new teachers—understand it. In the rural high school with large numbers of Teach for America teachers, one interviewee reported:

We had DPI [NC Department of Public Instruction intervention] last year because we were a low-performing school. The thing I liked about that is that we got the content area people, the coaches or facilitators, and they were very good coming in and working with our teachers. Because we had all new teachers, and I liked the fact that they were really, really dedicated to making sure that our teachers understood the curriculum.

Other teachers gave similar reports of instructional facilitators breaking down the Standard Course of Study, objective by objective to "make sure that our teachers understood the curriculum."

Another step in ensuring that the Standard Course of Study was taught was the development of pacing guides to distribute objectives effectively over time, coordinated with benchmark assessments to check students' progress at regular intervals. In some cases, these were developed at the district level, but in most of the improved high schools, pacing guides and benchmark assessments were either modified or actually developed by collaborating groups of teachers ("professional learning communities") within individual schools.

Even with a good understanding of the curriculum and a pacing guide, one leadership facilitator stressed that many teachers had trouble constructing lesson plans that worked well over the 90-minute period afforded by the block schedule. So he proposed a common lesson plan format based on his familiarity with the principles of effective instruction formulated decades earlier by Madeline Hunter and refined during his own experience as a principal (See, for example, Hunter, 1982). The format could be modified to fit the content and circumstances of a particular class, but the elements of explicit statement of the objectives, bell-to-bell teaching, a mixture of presentation with progressively more independent student

work, four or five transitions from one mode of activity to another, and a closing summary of what had been learned were viewed as essential.

Having shared the format with teachers, the leadership facilitator explained it to the principal, and showed the principal how it could be used as a guide during classroom observations that they conducted together. That is, he modeled its use as a format for making notes during the lesson and for providing feedback to teachers afterwards. Over time, as teachers used the format to guide planning, and the principal, assistant principals, and facilitator used it for observation and feedback, use of the lesson format seems to have become routine in the school.

Although they took different forms in different schools, the use of common lesson formats and frequent classroom observation were regular practices in the improved schools in our sample. Principals, assistant principals, and leadership facilitators seemed to focus primarily on whether Standard Course of Study objectives were being taught, whether lessons seemed well planned, and whether students seemed actively engaged during a lesson. Instructional facilitators gave specific content-oriented guidance to teachers, providing materials and unit plans, demonstrating lessons, team teaching with the regular teacher, and suggesting strategies for test preparation. The fact that the instructional facilitators were themselves “real teachers,” highly skilled and only recently out of the classroom, gave them special credibility.

Although the primary functions of regular classroom observation were to ensure that the Standard Course of Study was taught in a planful way and to strengthen instruction via feedback and suggestions, when teachers failed to respond with observable improvements, principals of improved schools put them on “action plans” calling for specific steps toward better performance. Continued failure to respond led to advice that “it is time for you to move on or retire.” Teachers receiving this advice often followed it before a record of negative evaluations leading toward discharge could accumulate.

As frequent as classroom observation by principals, assistant principals, and facilitators was, in improved high schools this type of administrative supervision was not the sole means of ensuring that the Standard Course of Study was taught and taught competently. A strong complement to administrative supervision came from collaborating groups of teachers, generally referred to “PLCs” or professional learning communities, in which teachers worked together to develop pacing guides and lesson plans, observed and gave each other feedback, created formative assessments, and used the results to improve their teaching as well as to pinpoint which of their students needed further instruction on which objectives.

One step in the creation of PLCs was to schedule common planning times for the teachers of a subject, or sometimes more specifically, of an EOC-tested course. But principals and assistant principals took additional steps to jumpstart collaboration. In one moderately improved high school, the principal and an instructionally oriented assistant principal led required weekly department meetings, orchestrating discussions focused on curriculum, teaching, specific students’ problems, and on how some teachers were able to succeed with particular students whom others could not reach. The sessions were designed not primarily to put lagging teachers on the spot but to help them learn from their peers. Many teachers testified that these collaborative sessions represented more powerful contributors to their professional development than any formal workshops they experienced. There was some initial resentment of and resistance to the sessions, but according to the principal, the meetings have now become routine, and the administrators have withdrawn from them except when invited by teachers or when they need to address

some problem.

In one of the most improved schools in our sample, the chair of the science department recalled, “Our significant change began when [instructional facilitator] started working with us.” With support from the instructional facilitator, the science chair began team teaching one large group of students with two younger teachers. The science chair took the lead, but all three planned and taught the class together. In classes that each of the two younger teachers taught later in the day, they used the same lesson plan and patterned their teaching after the approach that the chair had modeled. Over time, teachers throughout the department began team teaching during some of their classes. They used the school’s common lesson format but put special emphasis on hands-on approaches, including physical models (e.g., of atoms, molecules, cells) along with regular vocabulary drills and review, attention to test-taking strategies, and common formative assessments. The chair was convinced that students could do far better on tests if they learned how to focus their attention on essential points and avoid getting distracted by extraneous information. She modeled the process for her students, first reading test items aloud and walking them through the way she would attack the questions, then having them do the same. Through team teaching, she spread this practice through the department. Teachers in the department even developed a practice they referred to as “rotations,” in which the teacher who was best at teaching a given set of objectives would teach it to all of the students enrolled in an EOC-tested subject rather than keeping students in fixed class groupings. This level of team teaching and student exchange was uncommon, but teachers in improved schools often reported observing each other to pick up ideas and make suggestions.

The use of multiple layers of assessment data by teachers in these PLCs seems to have been particularly powerful, ranging from the use of SAS-developed Educational Value-Added Assessment Software (EVAAS) to analyze EOC results to the use of benchmark tests to ongoing formative assessments. An instructional facilitator who was particularly knowledgeable about EVAAS became “a kind of EVAAS guru” for teachers in one improved school. One capability of the EVAAS software is to predict a student’s likely score on an EOC exam, based on his or her scores on prior End-of-Grade and End-of-Course exams. With guidance from the “EVAAS guru,” the teachers responsible for each EOC-tested subject examined the prediction for each student in each of their classes and brainstormed ways to beat the predictions. In addition, district-developed benchmark tests administered at nine-week intervals kept the teachers themselves on track as well as helping them track student progress. Teachers in this school also used the ClassScape system developed at NC State University to assess progress weekly.

According to the teachers, the combined effect of all of this assessment was to focus them on what students were actually learning, on needed changes in their own curriculum and teaching, and on common errors that students make. As one teacher explained,

We use the data from ClassScape a lot because we do the formative assessments on each unit for Algebra I. [We have a common pacing guide, and] all of the Algebra I teachers give the same assessment, and we can look at the objectives and see, “Which objectives is my class weak in? This class over there was not weak in it, so let me talk to that teacher and find out what I can do better to improve my teaching of that particular objective.” Or, “Why were my students weaker here versus there?” And it just lets you know what you maybe need to go back and focus on what the students are not getting. And this processing has helped build teamwork. The teachers teaching the same EOC [course] are really working together... far more than they ever did before. They’re developing lessons together, they share ideas, they share notes,

and see what works best.

Teachers in improved schools often reported using 20-question assessments on a weekly basis, with 5 of the 20 questions focusing on material taught in previous weeks. They stressed that the weekly assessments not only served the obvious functions of generating information to guide improvement of teaching as well as tutoring for students who missed certain items, but also prompted students to review the week's lessons and to refresh their memory of material learned earlier in the semester. In fact, as a science department chair put it, "For the slower students, repetition is really the key. You just cannot expect them to learn something at the beginning of the semester and remember it when EOC time comes at the end of the semester."

Looking across the improved schools in our sample, we saw a variety of approaches to supervising instruction, building professional community, assessing student progress, and using the results both to reshape instruction and to pinpoint the difficulties that students were having in working toward proficiency. But all of the improved schools used some version of these techniques to ensure that the Standard Course of Study was taught in a planful way, that student learning was checked regularly, and that the checks led to ongoing improvements in teaching as well as interventions with struggling students.

Organizing Assistance for Struggling Students

The NCDPI's Framework for Action required the turnaround schools to submit plans for assistance to struggling students. In improved schools, principals, assistant principals, and teachers did provide extra help to struggling students before, during, and after school, focusing the help by using information from the benchmark tests or formative assessments. In the highest performing high school in our sample, teachers seemed to go to extraordinary lengths to work with students who needed help. One math teacher—a former stock analyst who came to teaching as a second career—told us that he arrives at school at 6:30 each morning to tutor students before school, often stays until 5:30 or 6:00 p.m., and sometimes meets students after church on Sundays. These weekend hours may have been unusual, but before- and after-school tutoring by teachers and some principals was common in the improved schools.

Yet because transportation was limited in rural areas and because some students either worked or had responsibility for younger siblings, many students apparently found it difficult to get to school early or stay late for extra help. So, the improved high schools scheduled periods during the regular school day for this purpose. One school called these periods Great Expectations. To make time in the day for these sessions, the school eliminated a ten-minute break from the schedule and shaved five minutes off of each class period. The school's instructional coordinator explained that because some teachers were not using the time well, she and the principal laid down some ground rules for the Great Expectations periods:

They can't introduce new material. They can't just provide free time for students to work. So after benchmark assessments, we sit down with teachers and we look at [what objectives the students in each class seem to be having trouble with] and we say very clearly, "This is what you need to reteach during Great Expectations time." For classes that are not benchmark tested, we ask teachers to reflect on their own assessments. "If [a certain percentage] of your students did not do well on a test, you need to do item analysis to see what they need help on." So teachers know what they need to reteach.

Great Expectations also served as a time for pullouts for students who need intensive help in any classes. The focus of the pullouts would change over time. For example, there was an intensive focus on writing right before the writing test. Interestingly, teachers of non-tested subjects such as Spanish or Band were also allowed to pull students out for extra help during a Great Expectations period. To allow for more intensive and targeted intervention, virtually all staff members pitched in to help with pullout sessions, including the principal, himself a former mathematics teacher, and the schools' instructional coordinator, a former science teacher.

In addition to ongoing tutoring services during the school day, some schools created special programs to prepare for End-of-Course exams. For example, at one improved school, teachers wore camouflage uniforms, combat boots, and other military gear to stir up interest in two weeks of "boot camp" sessions held after school. "We have about 200 sophomores, and we had at least 100 of them participate for at least one day," an English teacher recalled. Several teachers of other subjects joined the English teachers to staff the boot camp sessions. EOC preparation sessions took different forms across the schools, but some form of special sessions, often with participation by teachers of non-tested subjects, were a regular feature of the improved schools.

External Support: Strengthening External Linkages

The most important single thing that districts did to support the high schools that made significant progress was to select and install a new principal. Superintendents and others involved in these hiring decisions emphasized knowledge of curriculum and instruction as the key qualification. The days of choosing principals primarily for an ability to keep order and keep parents happy are long gone, they said. The new principals' mandate was to raise test scores, and to do so quickly. In many cases, district officials followed up on the installation of a new principal by providing a variety of continuing supports. But in some improved schools, the principals complained about the lack of support they were getting and expressed fears that district decisions would undermine the progress the school was making. It appears that continued central office support was helpful but not absolutely essential to a turnaround effort. Some schools apparently made progress without it. But district intervention was essential at the point of installing the right new principal, and as I emphasize later, districts also play an essential role in sustaining progress when principals and other key personnel are lost.

One central office intervention was initially unwelcome from the principal's point of view but was also unusually productive: the decision to replace approximately half of a struggling school's faculty with Teach for America (TFA) recruits. At the end of the first school year thereafter, the school's performance composite rose by some 20 points, and by the end of the second school year, by another 10. Even during the first year, the principal recognized the wisdom of the move as the TFA teachers put their talents, commitment, and energy behind the improvement effort. But the major personnel replacement did not solve the school's problems by itself. It was followed up with substantial professional development and coaching from the DST and the New Schools Project, as well as by the types of support outlined above. The central office also provided extra funds for after-school tutoring, thus raising teachers' morale as well as strengthening support for struggling students.

Another major intervention, this one by central administrators in an urban district, led to the complete redesign of a large, low-achieving high school with a reputation for gang violence. The associate superintendent responsible for the school called in the NC New Schools Project (NCNSP). On the day that NCNSP staff first visited the school, police tasered a student who resisted arrest. With support from the central office, the school was divided into five smaller academies, each organized around a distinctive theme. With a hand-picked principal and staff, the academy we chose to study had gone on to achieve remarkable results, including greatly improved student behavior and a performance composite in the mid-90s.

At a small rural high school, the new principal lined up a series of appearances at churches throughout the largely African-American community. At each, he was accorded time to explain what he and his colleagues were undertaking and how they were going about it. This extensive round of appearances paid off later when he instituted new policies requiring a higher GPA to participate in sports, thus threatening the participation of some talented football players. Some grumbling arose among parents and athletic boosters. "But some important people in the community told them that I knew what I was doing, so they should leave me alone," he recalled. Despite any opposition that may have been aroused by the new GPA requirement, the county commissioners were also persuaded to raise the local teacher supplement in this low-wealth community by \$1,000.

In at least two other schools, the relationship between the district and community was slow to turn

around. The school's identity in the community was shaped by contrast with that of the other high school in the district. The latter, located in the more prosperous county seat, was seen as "the good high school," while the school we studied filled the role of "the bad high school." The school's image was not enhanced by television footage of a student being helicoptered out after being shot as he was leaving school. The new principal appointed soon thereafter took several steps to improve the school's image. Among them was a Saturday event devoted to cleaning up the school and painting the entranceway and the atrium where assemblies and other events were held. According to the principal, "We got 400 parents and students to work with us that day." The atrium was festooned with student-painted banners featuring passing rates on the first semester's EOC exams. One proclaimed, "We made it! 82%!" Yet the principal continued to worry that the school's identity as second best may persist in the minds of the school board and superintendent. He was anxiously awaiting the effects of budget cutbacks, fearing that personnel cuts would leave him without the handful of new people he had managed to bring in to help him lead the turnaround effort.

If districts' intervention to choose and install a new principal was essential for initiating turnaround in many of the improved schools in our sample, another critical point for district action seemed imminent in several of the schools, where continued improvement and high performance appeared to be threatened by the potential loss of the principal and other key staff members. Principals who demonstrate the ability to turn around a struggling school seem to attract attention and job offers from other districts and agencies that need their skills. Especially when they feel unsupported or underappreciated, the outside attention appears to be flattering and tempting. When the culture of a school has changed in a deep way, and productive norms and routines have been established, the school may be able to withstand setbacks of many sorts, but the loss of a turnaround principal and his or her key lieutenants—be they assistant principals, lead teachers, or others—may prove more than even the most resilient school can withstand. Unless, that is, district leaders are ready to step in, reassure the staff, and select a new principal who can rapidly win teachers' confidence and sustain the momentum. Thus, while ongoing support from the district office was helpful to the improved schools we studied, it is at the beginning of the turnaround process and at times of leadership transition that district action appears to be critical.

Contrasts Between Improved and "Stuck" Schools

To this point, I have focused exclusively on the schools in our sample that made moderate or high progress. Before concluding with some reflections on the implications of our study, I offer in Table 1 a summary of the contrasts between the improved and the "stuck" schools – those that had made little or no progress or whose performance had actually worsened. As Table 1 suggests, the main difference lay in whether a "coachable team" was in place. That is, whether a district was able to select, install, and provide continued support for a principal who could replace ineffective, alienated teachers with more energetic and committed ones, hold them accountable for improved discipline and achievement yet form strong bonds with them and thus set the stage for the NCDPI's professional development and coaching to take effect.

Table 1: Contrasts between Improved and "Stuck" Schools

School Attribute	Improved Schools	“Stuck” schools
Focus and continuity	Sustained focus on improving key functions	Profusion of stop-and-start initiatives without continuity or follow-through
Principal replacement and district support	District installation of new instructionally oriented principal committed to reform, with continued district support for assertive accountability	Without strong district support for principal and assertive accountability, continued principal turnover
Teacher replacement	Replacement of ineffective teachers with energetic new teachers committed to turnaround agenda, with district support	Without improved discipline and accountability for student achievement, continued uncontrolled teacher turnover
Accountability and teacher-principal relationships	Principal actively holds teachers accountable for improving student achievement AND builds positive relationships with teachers.	Ineffective leadership, ranging from unilateral demands for improved achievement without relationship building, to nurturing relationships without accountability
Discipline and order	Tough, well-enforced discipline policy combined with strengthened adult-student relationships produce orderly environment for learning.	Without an assertive principal with strong district support, teachers lack incentives and confidence to enforce discipline.
Professional development (PD) and coaching	PD with sustained coaching follow-up at school and classroom levels strengthens principal and teacher skills and knowledge.	Continued turnover undermines the effects of PD and coaching; spottier classroom level coaching
Curriculum coordination and assignment	Strategic, individualized assignment of students to curriculum pathways matching their developing skills and of strongest teachers to End-of-Course curricula	Curricular pathways less carefully constructed, both student and teacher assignment less strategic
Instructional supervision	Frequent classroom observation and feedback from school leaders	Less regular classroom observation, less feedback
Professional community	Time, training, and support for teacher-led collaboration on pacing guides, lesson plans, mutual observation, and use of formative assessment	Less structure and support for a professional learning community (PLC), resulting in less robust implementation of PLCs
Assistance for	Well-developed tutoring focused with	Assistance less organized, not clearly

struggling students	formative assessment results—during, before, and after school	focused with use of formative assessment
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Conclusion: Reflections on Transformation, Restructuring, and Scaffolded Craftsmanship

In making the case for a “school improvement by design,” Rowan and his colleagues have argued that high academic standards, assessment-based accountability, and enlarged choice are necessary but not sufficient conditions for the improvement of low-achieving schools (Rowan, Correnti, Miller, & Camburn, 2009). They note that these conditions may motivate teachers and others in such schools to work harder, but by itself, stronger motivation cannot bring about large improvements in troubled schools. Nor, they write, have such macro-level approaches as recruiting abler or more highly qualified people into teaching produced more than “discouragingly small” average change, and locally-driven school-by-school approaches have typically produced improvement in only a minority of low-achieving schools (Rowan et al., p. 10). As an alternative, Rowan and his colleagues propose “school improvement by design” as a way to help low-achieving schools bring about the fundamental changes in instructional practice needed to complement stronger motivation and thereby effect larger and more reliable improvements in performance. Through an extensive multi-methods study of 115 elementary schools that implemented one of three comprehensive school reform models, they found that externally-developed, research-based designs can be implemented faithfully and produce substantial improvements in student performance.

Our study suggests a second scalable alternative to macro-level and locally-driven approaches -- scaffolded craftsmanship, located on a continuum between locally-driven improvement on the one hand and improvement by design on the other. On the premise that chronically low-performing schools were incapable of self-improvement, the high schools we studied were urged to choose from a menu of Comprehensive School Reform models, and most did so. Yet it is telling that only one of the twelve high schools we studied managed to implement the chosen model successfully, and that school was virtually a new start, with its principal, entire faculty, and student body recruited from scratch. The other 11, where the effort was to reform a largely intact school, abandoned their chosen models in favor of designs largely structured by the NCDPI’s Framework for Action, a pattern which managers of the NCDPI program confirmed as general across the entire set of 66 high schools served by the program.

The NCDPI’s approach enjoyed several advantages over the CSR models. First, it focused on function rather than form. For example, the High School Framework for Action called on the schools to develop a “plan for 9th grade transition” rather than to implement a single organizational form such as a Freshman Academy, a prominent feature of one CSR model. The balance of the Framework was similarly oriented to functions rather than forms, calling on the schools to develop plans for formative assessment, assistance to struggling students, improving students’ literacy skills, professional development based on student achievement data, building professional learning community, involving the school community in addressing school needs, and reviewing all school processes and procedures to ensure consistency with a priority on school-wide academic proficiency. The emphasis on function over form focused principals and teachers on what the NCDPI saw as central influences on student learning but permitted them to develop

approaches that fit their circumstances and commanded their commitment. NCDPI professional developers and coaches often fed relevant research into the process, but in the form of findings and insights rather than R&D products. Other advantages included the PD providers' and coaches' familiarity with NC students and schools, their reputations as principals and teachers fresh from successful experiences in similar schools, and the frequency and long term continuity of their visits to the schools.

On first examination, the adoption and subsequent abandonment of most components of the CSR models appear to represent an instance of Berman and McLaughlin's famous "mutual adaptation" (Berman & McLaughlin, 1975). Berman and McLaughlin found that in successful implementations of innovations supported by the federal grant programs they studied, the innovations did change the implementing schools, while the schools also changed the innovations themselves, dropping some features and adjusting others to fit their circumstances. But in the schools we studied, CSR models played a very minor role, and to conceive the change process in terms of model implementation – even via mutual adaptation – would be like mistaking details in one corner of a painting for the central subject and theme of the painting. In these schools, change was mostly about the craft of reconstructing the schools' major functions with judicious external guidance, not about implementing the CSR models. The importance of the NCDPI's guidance also differentiates the change process in these schools from purely locally-driven change.

If "scaffolded craftsmanship" characterizes much of the turnaround process, substantial personnel replacement also played a key role in successful turnaround efforts. Although the NCDPI refrained from using its authority to order personnel replacement, in all of the schools that did improve, local districts installed new principals near the beginning of the NCDPI intervention. In addition, one school built a new faculty from scratch, and the other improved schools replaced from a third to half of their teachers. The personnel changes brought new energy and talent into the schools and eased the process of mobilizing the faculty behind a reform agenda. But several cautions concerning personnel replacement are in order. First, as bitter experience in the unimproved schools in our sample showed, without assured district support, new principals could not assert tough accountability or discipline policies or take other steps necessary to stabilize the school's climate and reduce uncontrolled turnover. Absent stability, personnel replacement was just more turnover. Second, after the personnel changes, new principals had to work hard to build both teacher-principal and teacher-teacher trust. Due in part to the pressures and negative publicity affecting these low-performing schools, distrust was already pervasive, and personnel replacement tended to exacerbate the problem until deliberate trust-building efforts could overcome it. And third, both principals and teachers emphasized that professional development and continued coaching were necessary to convert the newcomers' talent and energy into skilled practice.

As noted earlier, the turnaround process in the improved schools we studied was similar to the pattern found in prior case study research. Herman, Dawson, Dee, Greene, Maynard, and Redding (2008), summarized those findings and translated them into four primary recommendations: (1) signal the need for dramatic change with strong leadership, (2) maintain a consistent focus on improving instruction, (3) make visible improvements early in the school turnaround process ("quick wins"), and (4) build a committed staff. Because I conceptualized the process differently -- emphasizing (1) commitment, climate, and culture, (2) knowledge and skills, (3) structures and support for instruction, and (4) external support – the similarities may not be immediately obvious, but the mapping displayed in Table 2 on the following page shows the close correspondence.

The present study indicates that the NCDPI's Turnaround Schools program made it possible to scale up

from isolated changes in individual schools to improvement on a statewide scale in a total of 66 low-performing high schools. Improvement across the set of high schools was not uniform, but the average improvement in proficiency rates met the standard set by

Table 2: Comparison of Present Study Findings with IES Practice Guide Recommendations

	NC Turnaround Schools Study	IES Practice Guide
<p>Commitment, Climate, & Culture</p>	<p>Establish goals, standards, & accountability</p> <ul style="list-style-type: none"> • Replace principals • Assert responsibility for disciplined student behavior • Assert responsibility for high student achievement <p>Forge Bonds & Mobilize Engagement</p> <ul style="list-style-type: none"> • Develop trust & bonds • Engage teachers in planning, policy-making, & problem-solving 	<p>Signal need for change with strong leadership</p> <ul style="list-style-type: none"> • Replace the leader or radically alter leadership practices • Make the school leader the visible instructional leader in classrooms • Publicly announce changes & anticipated actions <p>Make visible improvements early (quick wins)</p> <ul style="list-style-type: none"> • Develop strategies readily implemented with existing authority & resources • Change use of time, improve physical facilities & access to resources, improve discipline <p>Build a committed staff</p> <ul style="list-style-type: none"> • ID & replace staff not committed to turnaround goals or who actively resist turnaround
<p>Knowledge & Skills</p>	<p>Developing human capital</p> <ul style="list-style-type: none"> • Selectively replace personnel • Focus PD on problems • Follow through with coaching 	<p>Build a committed staff</p> <ul style="list-style-type: none"> • ID & replace staff lacking skills to implement turnaround goals • Recruit new staff with specialized skills for positions such as mentors & instructional coaches <p>Maintain consistent focus on improving instruction</p> <ul style="list-style-type: none"> • Arrange PD targeted with use of data on achievement and instruction, differentiated by teacher needs &

		priority subjects
Structures & Support for Instruction	<p>Organizing & managing instruction</p> <ul style="list-style-type: none"> • Coordinate curriculum and assign students & teachers strategically • Supervise instruction, build professional community, & use assessment • Organize assistance for struggling students 	<p>Maintain consistent focus on improving instruction</p> <ul style="list-style-type: none"> • Engage teachers & leaders in collaborative review of curriculum against state & local standards plus student needs • Examine school-level data to ID gaps in student learning • Have teachers use formative data to analyze instruction • Establish priorities for instructional improvement & make changes accordingly <p>Build a committed staff</p> <ul style="list-style-type: none"> • Redeploy staff to roles where more effective <p>Maintain consistent focus on improving instruction</p> <ul style="list-style-type: none"> • Ensure ongoing progress monitoring and adjustments by school leaders & instructional staff
External Support	<p>Strengthening external linkages</p> <ul style="list-style-type: none"> • Secure district and community support 	<p>Signal need for change with strong leadership (Lead)</p> <ul style="list-style-type: none"> • Publicly announce changes & anticipated actions

Herman et al. (2008) for “a turnaround school.” One cannot be certain that it was NCDPI-scaffolded craftsmanship that brought about the improvements, but as noted earlier, over the 2006-10 period, the 66 treated schools improved proficiency rates and learning gains substantially more than the next 64 higher-performing schools.

Nationally, growing frustration with the failure of many low-performing schools to improve has fueled interest in more “robust” or radical interventions, such as (a) wholesale replacement of all teachers as well as the principal of such schools, (b) closing them and redistributing students to other schools, and (c) re-starting them as charters or turning them over to educational management organizations. Yet research has called into question the effectiveness of wholesale personnel replacement and closure (De la Torre, Allensworth, Jagesic, Sebastian, and Salmonowicz, 2012; Hess, 2003), and as Rowan et al. have noted, the literature on charters is not encouraging (Rowan, Correnti, Miller, and Camburn, 2009). So these more “robust” interventions may not prove to be more effective interventions. The findings reported here suggest that judicious personnel replacement followed up by professional development and coaching targeted to key school functions may represent a better bet than the more radical approaches currently promoted via NCLB sanctions and the Race to the Top Initiative.

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