

A Socioecological View of Higher-Performing Diverse Elementary Schools

Kristen Campbell Wilcox

University at Albany

This multiple case study relied upon a socioecological framework and the lens of resilience to investigate practices and processes that are correlated with higher academic achievement among African American, Hispanic, and English language learners. Utilizing quantitative measures for sample selection of 10 higher-performing and 5 average-performing schools and qualitative data collection and analysis methods, findings indicate that 4 interrelated practices characterize higher-performing diverse schools: close engagement with and understanding of the student population; intensive literacy- and technology-enriched instruction; a collaborative and iterative approach to curriculum revision and data use; and fluid adaptation and deployment of resources. One of the 15 diverse high-poverty case study schools is discussed in detail as an exemplar. The findings from this study suggest that research cutting across levels of classrooms, schools, and districts sheds light on the interrelated proximal and distal processes that promote resilience and higher academic achievement among ethnically and linguistically diverse students.

The disparity in academic performance between Caucasians and African Americans, Hispanics, and English language learners (ELLs) has been attributed to a variety of factors. These factors include, among others, high levels of poverty in some diverse schools, unequal allocation of resources in diverse communities and schools, inadequate systems to prepare high quality teachers for diverse schools, and unequal use of high quality curricula in diverse classrooms (Darling-Hammond, 2010). These patterns are not unique to the United States, however, as ethnic, linguistic, and socioeconomic factors have been identified as predictors of lower student performance in other countries as well (Driessen & Slegers, 2000). Unfortunately, in the United States, efforts aligned with the goal to improve the academic performance of ethnically and linguistically diverse students and close achievement gaps have resulted in narrowed instruction and little improvement in academic performance (Nieto, 2011; Perie & Moran, 2005; Rivera & Waxman, 2011).

Some of the research exploring what can be learned from those schools serving students facing conditions that would typically leave them at risk for school failure has been rooted in resilience theory (Borman & Overman, 2004; Condly, 2006; Elias & Haynes, 2008). For the

purposes of this study and following the explanation of Greene, Galambos, and Young (2003), resilience is defined broadly as abilities to be successful even in the face of adversity. Resilience theory explains that a combination of individual and social protective factors interact in complex ways to give rise to resilience in adverse conditions. Furthermore, resilience is not understood as extraordinary, but rather as inherent to all natural systems, including human ones (Folke, Colding, & Berkes, 2003; McTigue, Washburn, & Liew, 2009; Prince-Embury, 2008). Resilience theory as it has been applied in educational research suggests that children who receive proactive, sustained support that develops adult-child relationships and individual competencies such as self-control are more likely to surmount adversities and achieve better in school than those who do not (Condy, 2006; Prince-Embury, 2008).

Resilience theory is related to strains of research in the physical and social sciences rooted in socioecological frameworks that conceptualize human social systems (including schools) as complex and composed of multiple coevolving levels (Bronfenbrenner, 1993; Wardle, 1996). In Bronfenbrenner's socioecological model, for example, the micro-, exo-, and macro-systems are seen as nested one within another. Microsystems can be equated to the immediate classroom settings where students experience proximal processes—direct interaction between educators and students (e.g., instruction). Exosystems are those settings in which students do not usually participate directly (e.g., school and district administrative meetings) but within which distal processes may occur that can indirectly influence students' performance (e.g., intervention and assessment discussions). Finally, macrosystems take shape as cultures, climates, bodies of knowledge, customs, lifestyles, socioeconomic conditions (e.g., status or class) that also distally influence students' lives (see Figure 1).

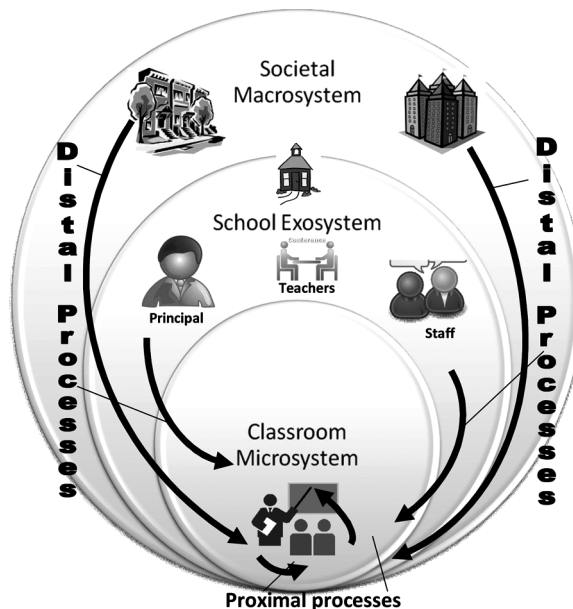


FIGURE 1 *Socioecological framework.*

Socioecological theory posits that proximal processes generally have greater impact on development than do distal ones (those that occur in exo- and macro-level contexts). However, the nature of the impact is influenced by the stability of the climate, so that distal processes have greater impact on individual development in adverse contexts than in less challenged circumstances. If so, it is important to identify how the effects of adversity might be mitigated to support the highest levels of student achievement.

Therefore, the intent of this study was to identify the classroom, school, and district factors that differentiate consistently higher-performing high-diversity schools from schools that share demographic characteristics, yet with only average performance. To do this, the study was guided by questions that sought to cut across the micro- (classroom), exo- (school and district), and macro-levels (climate and culture) and inquire into the ways educators approach aspects of their work identified in the school reform literature as correlating with higher academic achievement among diverse students (e.g., fostering of a positive school culture or climate, alignment of curriculum to rigorous academic goals, building coherence in instructional programs and practices, conducting ongoing assessment and using performance data to inform instruction, fostering leadership and capacity-building adapted to diverse student needs, providing timely and effective interventions and adjustments; Datnow, Lasky, Stringfield, & Teddlie, 2005; Fullan, 2005; Hargreaves & Shirley, 2009; Kowalski, Lasley, & Mahoney, 2008; Levine & Lezotte, 1990; Martin, Fergus, & Noguera, 2010).

RELATED RESEARCH

Decades of research have suggested that both individual student characteristics and the context wherein a student is educated can affect individual student achievement outcomes (Coleman, 1979). Furthermore, research findings also have indicated that high poverty and high ethnic and linguistic diversity in a school correlate with lower student achievement (Oakes, 2005). What impact policy and educators' practice might have on the academic achievement of African American, Hispanic, and English language learners who persistently achieve well below their Caucasian and native English speaking peers in school has been a central concern to researchers. Some have focused on classroom-level factors such as teacher–student relationships, instructional styles, and curriculum; others have focused on school and district factors such as leadership, teacher capacity building, interventions, and other adjustments (e.g., class configurations). However, as Datnow et al. (2005) noted in their review of school reform literature, research is needed to investigate what “linkages” (p. 47) exist between levels (e.g., classrooms, schools, and districts) in higher-performing schools and how those linkages might relate to diverse students' academic achievement. This study, rooted in a socioecological framework and drawing on resilience theory, does this by adjusting the lens of inquiry on the characteristics of proximal (classroom, micro-level) and distal (school and district, exo- and macro-level) processes in higher-performing high diversity schools.

Proximal, Classroom Processes: Teacher-Student Relationships and Instructional Styles

Research focused on relationships and instructional styles has suggested that supportive teacher–student relationships embedded in a community school model that values those relationships

positively affects ethnically and linguistically diverse students' academic achievement (Borman & Overman, 2004). Elias and Haynes (2008), drawing on resilience theory in their study, found that supportive teacher–student relationships combined with explicit instruction in other social-emotional skills serve as protective processes for students at risk for school failure. However, in their study the positive impact of these interventions was not uniform across cultural and ethnic groups, raising questions as to the need to differentiate these support structures for students of various ethnic, cultural, and linguistic backgrounds.

Culturally responsive pedagogy has been proposed as a necessary alternative to a diversity-blind differentiated instruction approach (Banks, 1993; Ladson-Billings, 1995; Lee, 1999). Culturally responsive pedagogy proposes that to improve diverse students' achievement, students need to be able to draw on their cultural and linguistic knowledge, prior experiences, and performance styles, and teachers need to adapt their instructional styles and curricula to their students (Gay, 1995, 2010). Santamaria (2009), in a qualitative study, found that schools identified for higher academic achievement and closing achievement gaps were using culturally responsive teaching in combination with differentiated instruction methods.

These studies rest on a growing body of literature indicating that, at the classroom level, purposeful fostering of positive adult–child relationships, guidance for students in developing intrapersonal and interpersonal social and emotional skills, and culturally responsive, differentiated instruction can positively affect the academic performance of diverse learners (Elias & Haynes, 2008; Masten, Best, & Garmezy, 1990; Nettles, Caughy, & O'Campo, 2008).

Distal Processes: Leadership, Teacher Capacity, Interventions, and Adjustments

Another growing body of research focuses on school and district leadership, teacher capacity building, and decisions regarding interventions and adjustments that occur distally, outside the classroom. Some researchers have investigated how manipulations of class configurations affect student achievement (McGee, 2004; Nye, Hedges, & Konstantopoulos, 2004). Some of these studies have indicated positive effects of smaller class sizes, yet others do not support this finding. Findings from other studies highlight the impact of principal leadership on the use of space, strategies used for serving the needs of diverse learners, and strategies for the building of teacher capacity in working effectively with ethnically and linguistically diverse students (Burch, Theoharis, & Rauscher, 2010). In these studies, class configurations, including the student population in a class (i.e., linguistically and ethnically heterogeneous or homogeneous) and the scheduled time in class have been correlated with effects on student achievement.

With regard to building teacher competency to affect English language learners' achievement, central issues identified in the literature include the role of teacher preparation and professional development in shaping a sense of shared responsibility among mainstream classroom teachers and English as a second language (ESL) teachers (Harper & de Jong, 2009). Using a national survey from the U.S. Department of Education's National Center for Educational Statistics and growth modeling as the analytic strategy, Han and Bridglall (2009) investigated the relationships of elementary student performance in math and English and variables such as school ELL concentration, home language, immigrant status, ESL instruction, and services. Findings from this study suggest that in school contexts where ESL teachers, bilingual aides, or both are used effectively, ELL reading performance is positively affected. This study also found that schools

offering more Title I services (e.g., extending learning time before school, after school, or both for targeted children, family literacy services) and services for ELL families (e.g., translators available for parent–teacher conferences, outreach workers to assist families enrolling children) allowed ELL children to improve their math scores faster than their English-speaking peers.

This research indicates the potential significant impact of interventions and adjustments through the use of teaching aides, ESL and bilingual teachers, and the focusing of before- and after-school time on ELL achievement. However, little of this research provides detailed accounts of the processes and procedures used to support ESL and mainstream classroom teacher collaboration and effective model configurations of support reaching beyond the classroom to ELL families, a variable found to be of import among some populations of ELLs (Martin et al., 2010).

A Socioecological View of Ethnically and Linguistically Diverse Schools

Although contextual factors such as poverty, ethnicity, and linguistic background have all been shown to relate strongly to lower academic achievement, increasing evidence also indicates that schools do have significant effects on diverse students' achievement (Datnow et al., 2005; Oliveira et al., 2012; Teddlie & Reynolds, 2001; Wilcox & Angelis, 2008, 2009, 2010). Along this vein of inquiry, the central concern of this study was with what practices and processes in classrooms, schools, and districts might relate to higher academic performance among ethnically and linguistically diverse elementary school students.

This study centered on the question: What district, school and classroom processes and practices are characteristic of elementary schools with higher performance among ethnically and linguistically diverse students? Subquestions included: What are teachers' and administrators' beliefs about diverse learners? How are academic goals and curriculum developed? What practices related to leadership and capacity building are evident? What instructional programs and practices are used? How is student performance monitored and how are data used? What interventions and adjustments are made?

METHOD

This study employed a multiple case study methodology utilizing quantitative methods to identify the sample and qualitative methods for data collection and analysis.

Sample Selection

Schools for this study were selected using publicly available data on school performance and school characteristics. Analyses focused on subgroup performance data on New York state assessments in math and English for the years 2007, 2008, and 2009, in Grades 3 through 6 (the grades for which assessment data are available). Analyses focused on the performance of subgroups of African American, Hispanic, limited English proficient (i.e., ELL), and economically disadvantaged, as defined by New York State for accountability purposes. Relative performance on each assessment was defined as the percent of students obtaining a grade of 3 (proficient) and the percent obtaining a grade of 4 (advanced).

To adjust relative performance scores for demographic characteristics known to affect achievement, least-squares regressions were run, regressing relative performance on six background variables: percentage African American, percentage Hispanic, percentage limited English proficiency, percentage stability (percentage of students in the highest grade who were also enrolled the previous year), percentage of students eligible for free or reduced price lunch, and number of students at the target grade level. From each regression, a standardized residual was obtained reflecting the over- or underperformance of each subgroup relative to the performance of similar students in other schools in the state. Subgroup performance is only reported for subgroups of five or more students. With that restriction, *N*s for the regressions ranged from a high of 1,973 schools (for schools with economically disadvantaged) to a low of 432 (for schools with limited English proficient students).

To measure relative performance over time, means and standard deviations of the standardized residuals were calculated across years (2007, 2008, 2009) and subgroups for each school, separately for English language arts (ELA) and for math. Because the correlation between math and English averages was very high (.83), a combined standard score was used in the final sample selection as represented in Table 1. This *z*-score summarizes each school's performance over time with the subgroups that are represented within its student population.

This analysis was used to identify a sample of 259 schools whose relative performance across time and subgroups was at least one standard deviation above the mean for the state. From this pool, a sample of 10 higher-performing schools were chosen that had shown consistent success with at least two distinct subgroups, had low standard deviations for both math and English (indicating consistent performance across time), were distributed geographically around the state, and were funded at levels that did not differ widely from state averages as indicated by per pupil expenditures. This final sample of 10 "higher-performing" schools also favored higher-poverty schools, identified by percentages of students who qualify for free- or reduced-price lunch, with seven of the 10 (~70%) higher performing schools above the state average and four of the five (~80%) average-performing schools above the state average.

For each higher-performing school in the final sample, at least one average-performing school with similar characteristics in terms of student linguistic and ethnic backgrounds and poverty levels was selected. For example, Dr. Martin Luther King, Jr., John F. Kennedy, Centennial Avenue, Lincoln, Davison Avenue, and Forest Road (higher-performing) were at or above the state average for percentages of ELLs, as were Duncan, Jahn Meadows, and Teal (average-performing). Dr. Lunsford School 19, Dr. Martin Luther King, Jr., Centennial Avenue, Lincoln, Pakanasink, Davison Avenue, and Forest Road (higher-performing) were at or above the state average for percentages of African Americans, as were Duncan, Jahn Meadows, Riverview Landing, and Teal (average-performing). With regard to Hispanic or Latino populations, Dr. Martin Luther King, Jr., John F. Kennedy, Centennial Avenue, Lincoln, Pakanasink, and Davison Avenue (higher-performing) were at or above the state average, as were Riverview Landing and Washington (average-performing). Although some schools were larger than others, in part due to various grade configurations in schools in New York State, all schools in the study had similar class sizes (ranging from 21 to 26 students in a typical class). Higher-performing and average-performing schools were also similar with regard to teacher characteristics (e.g., numbers of years of experience, graduate study).

The final sample included 10 higher-performing schools and five average-performing schools, because in previous studies this number was found to be sufficient in reaching saturation around

TABLE 1
2008–2009 School Demographics and Z Scores

Schools	Grade Span	Total Enrollment	% F/R Lunch Eligible	% English Language Learner	% African American	% Hispanic/Latino	% White	% Other	PPE	Z Scores Combined
Higher Performing										
Dr. Lunsford School 19	K–6	309	98	2	94	3	2	1	\$18,956	2.1
Dr. Martin Luther King, Jr.	K–5	273	94	11	52	27	11	10	\$14,940	1.5
Columbus	K–5	816	78	31	8	82	8	2	\$21,959	1.6
John F. Kennedy	K–5	725	78	55	10	86	3	2	\$18,413	1.9
Centennial Avenue	K–5	440	66	30	54	45	0	0	\$24,585	1.8
Lincoln	K–6	758	60	15	49	24	21	6	\$22,133	2.4
Pakanasink	K–5	483	51	3	25	31	36	8	\$16,758	1.1
Maybrook	K–5	235	42	3	15	20	62	3	\$15,941	1.5
Davison Avenue	K–4	325	34	8	37	25	30	8	\$26,127	2.3
Forest Road	K–6	272	17	8	39	17	6	40	\$20,483	2.0
Average Performing										
Duncan	K–8	546	75	14	16	50	26	9	\$20,223	–.08
Jahn Meadows	K–5	875	60	16	27	47	24	2	\$20,281	–.18
Riverview Landing	K–6	727	66	2	20	9	67	3	\$14,243	–.13
Teal River	K–8	1047	67	22	23	47	28	2	\$18,877	–.15
Washington Avenue	3–6	444	19	5	1	10	83	6	\$27,043	.02
Mean higher-performing sample	NA	464	62	17	38	36	18	8	\$20,030	1.8
Mean average-performing sample	NA	728	57	12	17	33	45	4	\$20,133	–0.03
Mean New York State	K–12	2,692,649	48	8	19	22	50	8	\$19,381	NA

Note. Names of the higher-performing schools are actual; leaders of those schools agreed to have their schools identified, and a case report for each school has been published. Names of the average-performing schools are pseudonyms. PPE = 2008–09 district-wide total expenditures per pupil.

patterns in the data. Saturation and redundancy are criteria typically used to determine the extent of sampling in multiple case study designs (Merriam, 1997; Patton, 2001).

Data Collection

Once the target sample of 15 schools was identified, schools were then recruited using consent approved by the institutional review board. Anonymity was assured to average-performing schools (hence, pseudonyms have been used) and the option for full disclosure of school names was offered to higher-performing schools (all chose to do this). Documentary evidence and interviews were the primary data sources collected. Before site visits occurred, all available online documentary evidence from each participating school was mined and reviewed. Documentary evidence sought included such items as meeting agendas, master schedules, and instructional program descriptions. Documents not available online were requested from the school site and collected during the visit. Once site visits were arranged, a team of two researchers trained in human-subjects research visited the schools for 2 days to conduct 10–15 interviews and tour the school. Interviews were conducted with school and district administrators; mainstream classroom teachers; special education, bilingual, and ESL teachers; school psychologists; counselors; and social workers. These interviews followed a semistructured protocol and were conducted during one school period (~40 min) for teachers and typically in about an hour for administrators. (See Appendix A and B for documentary evidence inventory and sample interview protocol.) The interviews were audiotaped with the consent of the interviewee and a record was also kept using a laptop computer. In sum, a total of 15 schools were investigated, 211 interviews conducted, and 135 pieces of documentary evidence collected.

Data Analysis

Researchers kept memos after the first day of interviews to record developing interpretations of the data and guide data collection on the second day. At the end of the second day of interviews, researchers composed a summary of the site visit to record developing interpretations and guide the crafting of the case report. Each site team subsequently produced a case study of the school visited and checked the case study accuracy with participants from that school. To facilitate the cross-case analysis, all interview data from all case study schools were coded inductively using a constant-comparison method (Miles & Huberman, 1994) and utilizing the qualitative software program HyperResearch. These codes were organized into categories related to context, beliefs, and values; instructional programs and practices; curriculum and academic goals; leadership and capacity building; monitoring and compilation of data; and interventions and adjustments in alignment with the research questions.

Using typical cross-case procedures, code reports by category were generated using the software—one for each of the higher-performing and average-performing school sets. As these code reports were analyzed, features of practice were further categorized into dimensions. To assist in the analysis across individual schools and across higher- and average-performing sets, because the data set was sizable, a matrix comparing dimensions of each category was used (Stake, 2008; Yin, 2005). Table 2 provides an excerpt from the matrix used in this process. In this excerpt, the

TABLE 2
Cross-Case Matrix

Theme 2	Higher-Performing Schools										Average-Performing Schools				
	CN*	CO	DA	FR	JFK	LI	MLK	MA	PA	S19	DS	JM	RL	TR	WA
Balanced literacy	Y**	Y	Y	Y	Y	Y	Y	Y	Y						Y
Sheltering	Y	Y	Y	Y	Y	Y	Y								
Technology	Y	Y	Y	Y	Y	Y	Y	Y	Y						

Note. Schools are abbreviated. Higher-performing schools: CN = Centennial Avenue Elementary School; CO = Columbus Elementary School; DA = Davison Avenue Elementary School; FR = Forest Road Elementary School; JFK = John F. Kennedy Elementary School; LI = Lincoln Elementary School; MLK = Martin Luther King Jr. Elementary School; MA = Maybrook Elementary School; PA = Pakanasink Elementary School; S19 = Dr. Charles T. Lunsford School 19. Average-performing schools: DS = Duncan Road Elementary School; JS = Jahn Meadows Road Elementary School; RL = Riverview Landing Road Elementary School; TR = Teal River Road Elementary School; WA = Washington Ave. Road Elementary School.

** Y = evident in multiple data sources.

theme related to literacy was divided into dimensions of (a) balanced literacy approach in K-3; (b) integration of sheltering or language-enriched instruction into content; and (c) technology focused on literacy development aligned to student performance data and curriculum.

The dimension of *balanced literacy*, for example, saturated the data in the higher-performing schools, as evident in coded examples such as: “We were on the forefront with balanced literacy. We brought it into the district. We started it early on here. That is a component [of our success]. It could be balanced literacy early on, especially on the K–2 really having the students have a love for literacy and love for learning at an early age. That is a key part of our success, definitely, definitely.” If evidence of a dimension was evident in multiple sources (at least three interviews) within a particular case and also exemplified in documentary evidence, a Y was noted in the matrix. All cases were analyzed by category and dimension in this way. If at least half of the higher-performing sample showed evidence of a dimension and such evidence was not found in more than one of the average-performing schools at the conclusion of this analysis, the dimension was identified as a salient theme differentiating schools with higher, versus those with average, performance.

In sum, the cross-case findings were supported by the following methods for triangulation: data triangulation (through the use of documentary evidence, interview, and researcher memos); investigator triangulation (through the use of multiple site teams and member checking of both individual case studies and the cross-case analysis); and triangulation in time and space (through the use of multiple years of student performance data for sample selection and multiple locations for site study; Patton, 2001).

FINDINGS

The findings from this multiple case study suggest that higher performance among ethnically and linguistically diverse elementary school students is related to the following: close engagement with and understanding of the population; intensive literacy- and technology-enriched instruction; iterative approaches to curriculum infused with the ongoing collection and use of performance data; and fluid adaptations and deployment of resources. In the next section, a description of each finding in the cross-case study is given and followed by a description of one exemplary case.

Close Engagement with and Understanding of the Population

You have to know your population and teach your population, despite the outside factors. You have to know who’s in front of you. (John F. Kennedy teacher, Interview, 2011)

In the higher-performing schools in this study, engagement and understanding is characterized by three interdependent dimensions: communal stances and beliefs about difference; deliberate and effective outreach (especially to ELLs and ELL parents); and consistent vertical collaboration among administrators and teachers regarding student achievement. The research literature indicates that beliefs about ethnic and linguistic difference matter a great deal to a child’s opportunities to learn (Banks, 1997; Ladson-Billings, 1994; Nieto, 2004). Educators also know that beliefs and stances inform behaviors and help shape cultures and climates within schools (Bruner,

1996). In this regard, one of the major contrasts found between average-performing and higher-performing schools was in how academic achievement and the development of the whole child was understood and approached as a communal effort.

Although educators in average-performing schools tended to show evidence of an ethic of care for students and to promote school as a place for students to “be kids,” play, and learn to get along, they differed from their higher-performing school peers in how they envisioned their roles in providing emotional and social support while also holding high expectations for academic performance. For example, as ELLs make up a fairly large percentage of the population in some schools studied (Centennial Avenue, John F. Kennedy, Columbus) and a growing part of the population in others (Martin Luther King, Jr., Lincoln, Forest Road), what some have characterized as the *frog pond effect* (Goldsmith, 2011) comes into play, whereby students with diverse backgrounds tend to thrive in contexts with higher numbers of demographically similar peers. As a Columbus teacher explained,

I think ... one of the big things is that they [ethnically and linguistically diverse students] make up a majority of our students, so it's not like we have a separate group that we have to treat special. So it's like we don't have to teach ESL skills. They are all embedded in everything we do. (Interview, 2011)

This kind of whole-school culture and climate that embraced diversity as the “new normal” was not accidental, but purposefully supported in layers: physical, emotional, and then intellectual. As explained by a John F. Kennedy school administrator:

The school became first of all those three things. We wanted a kid to be physically safe; secondly, emotionally safe—unafraid to come to school, not feel bullied, always feel that adults care about him; and third—intellectually safe. That's more difficult. It means to be able to take risks and understanding how they learn. Once the school started to take on this feeling of being safe, secure, an oasis for lots of kids that have lots of issues, then along with that we started to use data, and the conversation of the school changed from “Well you know, the kids are lazy. The parents don't care about them. They're immigrants. What do they know?” to “Look, these kids are bright.” (Interview, 2011)

A second feature of higher-performing schools was the interplay between classroom- and school-level practices in making outreach to ELLs and their parents effective. In higher-performing schools, teachers were apt to lead the way toward forging strong relationships with parents, and school-level initiatives provided conduits for those relationships to be nurtured. A Davison Avenue administrator, for example, praised teachers for “making that communication [with parents] throughout the year—calling home, following up with the needs of the students” (Interview, 2011). Meanwhile, school-level initiatives related to fostering a family-like culture provided the places and events through which the boundaries between school and community could be blurred. In Martin Luther King, Jr., for example, a section of the library was reconfigured as a parent library and meeting place. The MLK principal recognizes that student achievement is a social endeavor that goes beyond school walls: “If we educate and welcome parents and make them partners in the education of their children, we have a better chance in succeeding with our academic goals” (Interview, 2011). Many of the administrators in the higher-performing schools saw the relationships between the school and parents or legal guardians as “key” and “pivotal” to students achieving their best and view this as the first and most important line of defense against students falling through the cracks academically.

Finally, those who study the capacity of any system, human or natural, to survive and thrive assert that resilience is reliant, in part, upon the system’s ability to self-organize. In this study, vertical collaboration, from classroom to school to district and in reverse, was a distinguishing characteristic of higher-performing schools. Qualities of self-organization were particularly evident in the role played by school-level administrators and teacher leaders. Through their interactions with teachers, important information flowed consistently back and forth and was made relevant to instructional or other changes. In Forest Road, for example, any day of the week one could witness the school principal and a teacher poring over performance data in what are called *Red Zone* meetings. The goals of these meetings are to dissect what is working and what is not, and for whom, and to ensure that adjustments (e.g., changing reading groups, assigning a specialist to work with a student) are made quickly based on the analysis. Teachers leave these meetings with action items to pursue, including different instructional approaches and using the resources available within the school (e.g., literacy specialists), knowing that follow-up on progress will occur in a month. The principal also leaves these meetings with a task: to share the results with district administrators on a monthly basis to inform targeting of professional development offerings or allocation of other resources to the school.

Ensuring that this kind of collaboration is effective depends, in part, upon the qualities of the leadership. Higher-performing schools were characterized by a school principal who was seen as someone who “pushes” yet “supports,” and “listens” yet “gives input,” and teachers attributed their investment in their work to this collaborative environment. Sharing a sense that administrators work “with,” as described by one Pakanasink teacher, marks a distinct difference between higher- and average-performing schools (Interview, 2011).

In sum, this theme is captured in the words of one Columbus teacher:

The success of the school is understanding our population and our students and trying our best to meet their needs, working with our parents to help them get involved in their child’s learning, and building a community within our school. (Interview, 2011)

Major contrasts between average- and higher-performing schools with regard to this finding are displayed in Table 3.

TABLE 3
Contrasts in Features of Engagement with the Student and Community

<i>Average Performing</i>	<i>Higher Performing</i>
An ethic of care and nurture is prevalent, yet responsibility for students’ emotional and social growth and academic achievement is not.	The school is seen as a family where cooperation is expected and all school employees take responsibility for children’s emotional and social growth and achievement.
Parent connections are weak and attributed to community apathy regarding schooling or language deficiencies among parents.	Forging parent relationships is enacted consistently through teachers and facilitated through school-level initiatives that recognize and celebrate diversity.
Dialogue (and action based on that dialogue) from teacher to school to district leadership and the reverse is infrequent and/or inconsistent and is not necessarily centered on student achievement.	Teacher leaders and principals consistently analyze student performance data with teachers. These frequent discussions inform instructional and other resource allocation changes from classroom to district.

Literacy- and Technology-Enriched Instruction

I strongly believe that a student must know how to read before they enter grade three. We do everything in our power within the classroom and within AIS [Academic Intervention Services] to reach this goal. Direct instruction, AIS, after school tutoring, as well as computer-aided instruction are the delivery systems we use to help our students read before entering Grade 3. (Martin Luther King Jr. teacher, Interview, 2011)

Another finding in this study was a contrast between the higher- and average-performing schools in the ways they approach developing literacy among diverse learners. The dimensions of this finding include early and intensive balanced literacy instruction, sheltered instruction for ELLs, and technology-enriched literacy instruction.

Although some average-performing school educators were using balanced literacy approaches, there was less consistency from teacher to teacher on what that instruction should look like, the amount of literacy instruction that should be offered, and how differentiated and culturally relevant that instruction would be. However, as an example of typical practice in a higher-performing school, a Lincoln teacher explained that on a typical day a student

will have three periods of English language arts instruction in addition to work with the phonics program: One period will be for writing skills, another for shared reading, and a third for guided reading. Instruction during that time will include introducing skills, doing hands-on activities, and engaging in fantasy and games such as *Could this happen?* (Interview, 2011)

In higher-performing schools, it was typical for teachers to provide literacy instruction for at least 90 minutes, these literacy blocks were not interrupted for pull-out interventions, and instruction during these blocks was differentiated to reach students with a broad spectrum of abilities.

The specific needs of English learners, although sometimes overlapping those of struggling native speakers, are unique to their native language backgrounds, literacy experiences, and a variety of other social and emotional factors (Cummins & Taylor, 2011; Martin et al., 2010). Although in average-performing schools, ESL instruction was typically approached as discrete from mainstream instruction, in higher-performing schools, mainstream teachers showed evidence of either embedding instructional adaptations designed for ELLs into their instruction using sheltering protocols (see Echevarria, Vogt, & Short, 2004), providing native language instruction, or coteaching with an ESL specialist. Although not all of the higher-performing school ESL teachers push in to the mainstream classroom using a coteaching model, in those schools where a pull-out model is used, ESL teachers are in sync with the ELA curriculum, sometimes using the same materials and then utilizing small group time to differentiate by ESL level. Teachers in higher-performing schools cited professional development training in making all classroom experiences “language rich, with more visuals, a lot of manipulatives, and a lot of building background,” as one Columbus teacher explained (Interview, 2011).

With regard to the uses of technology to enrich literacy instruction, although teachers in many of the schools in this study showed some familiarity with SMART boards, educators in the higher-performing schools more often cited uses of technology beyond displaying information to the whole class. Teachers at Centennial Avenue and Columbus, for example, commended the self-pacing computer programs their students were using for helping them start, as one Columbus teacher explained it, “where students are at” (Interview, 2011). Computer programs were also used effectively to monitor literacy development throughout the school year in higher-performing

schools. Performance data from these programs were used to target instruction to students' needs in real time. Finally, in higher-performing schools, efforts were made to encourage students to use technology to develop literacy skills beyond the school day. In Forest Road, the math program included an online component and some teachers assigned homework to be done on the computer. In schools where many students do not have home computers, such as MLK, grants were acquired to pay for them. In one MLK program, all preschool children and their parents were provided with an orientation on how to use a literacy program, along with a home computer.

Educators in the higher-performing schools build literacy early and intensively in a student's elementary years, adapt instruction for ELLs, and utilize technology in ways that monitor literacy development and motivate students at the same time. Average-performing schools are characterized by less emphasis on balanced literacy instruction in intensive blocks, less use of an ESL "push-in" or collaborative coteaching model, and little student use of technology as it is connected to building numeracy and literacy. Table 4 displays these contrasts.

Enlightened Approach to Curriculum and Data

The curriculum is appropriately aligned to meet the needs of our kids. (Mount Vernon [Lincoln] administrator, Interview, 2011)

A main driver of coherence in higher-performing high-diversity school instruction is the curriculum and the data-informed processes used to revise it. Dimensions of this theme include: an enlightened approach to curriculum that views activities around curriculum as conversations about what is important in a particular school context (see Applebee, 1996); a high level of *data literacy* in terms of purposes and uses of data in informing curriculum and instruction; and curriculum adaptations made specifically for ethnically and linguistically diverse students.

In higher-performing schools, a well-articulated, and oftentimes electronically available, K–12 curriculum helps facilitate teacher capacity to flexibly use a variety of instructional practices adapted to the population of students served. In these schools the curriculum itself generally serves as "a starting point," in the words of one School 19 teacher and instructional coach, especially for newer teachers or interim substitutes. As a district chair in Davison Avenue noted,

TABLE 4
Contrasts in Features of Instruction

<i>Average Performing</i>	<i>Higher Performing</i>
No clear and consistent balanced literacy approach is apparent from teacher to teacher and grade level to grade level.	Balanced literacy strategies are used to build literacy intensively and early in the elementary years (with the goal of all children reading by third grade). There is evidence of consistency from class to class and grade level to grade level.
English as a second language instruction is typically pull out and seen as discrete from mainstream instruction.	Mainstream teachers are either embedding instructional adaptations specific for English Learners (ELLs) and/or providing native language instruction to improve literacy development among ELLs.
Teachers may sing the praises of technology in captivating students' interests, but the technology is typically controlled by the teacher and not used in a strategic way to target needed literacy skills.	Technology is used to: target specific skills directly connected to the curriculum and at the level and pace of student need; continually monitor performance; supplement instruction to the home.

If you take the curriculum as written, if you give that to the teacher, the teacher will say, “What do I do with it?” But if I incorporate it with the text book, then tell them, “This is the strand; this is where it goes in the text and this is how it needs to be done,” that’s different. (Interview, 2011)

In these support structures, the curriculum is enlightened to engage educators in grasping not only what the curriculum does, but also how and why. These kinds of supports are not taken for granted in higher-performing schools and are provided through both district-level and school-level specialists.

A second contrast between average and higher-performing schools is in educators’ data literacy, characterized by the degree to which the collection and interpretation of student performance data is understood to inform practice. In higher-performing schools, what is articulated in the curriculum is directly linked to what appears in assessments. These assessments are then used as *actionable data*, as teachers, instructional coaches, and school and district administrators continually use them to inform instructional changes or use of other resources. In Columbus, benchmark reports are dissected according to curriculum strands and through item analysis. In higher-performing schools, administrators artfully walk a fine line between being *data centered* and building relationships with teachers and specialists so that conversations about the data and how they inform curriculum and instruction can be productive. One of the great benefits of building data literacy among the entire school staff is in how it “extinguished the ideas and the perceptions that kids can’t learn because they just don’t have it, and because they just can’t do it,” as a John F. Kennedy administrator explained (Interview, 2011). This perspective of “no excuses,” as many teachers and administrators expressed it, is backed up by the data showing that teachers can do something to improve diverse students’ academic performance.

A third contrast is in how the curriculum has been adapted to the needs of ELLs, and in how these adaptations are understood and enacted in mainstream classrooms. At the Martin Luther King Jr. School, for example, ESL addenda have been added to the curriculum. To make such an adapted curriculum come to life, ESL specialists were fully involved in the curriculum revision processes and provided workshops to their fellow mainstream teachers. At Lincoln, for example, a teacher attested to participating in monthly curriculum meetings along with ESL colleagues and being invited to give presentations on the results of their work.

Approaches to curriculum in higher-performing schools are distinguished from those in average-performing schools in how the curriculum is approached as a living, enlightening document supported in its use through expert guidance; a culture in which educators’ development of data literacy is encouraged and supported; and efforts to adapt the curriculum to the needs of ESL students. These contrasts are displayed in Table 5.

Fluid Adaptation and Deployment of Resources

[The school’s level of success] is definitely a collaborative effort. We have such a large population of ELLs—before they used to get pulled out. A lot of children knew who the kids in ESL were. . . . [Now], because most of the kids who are in the ESL program are in general education classes with a general education teacher and an ESL collaborating teacher during ELA time, [the children do not know which of them are classified as ESL]. (Columbus Elementary administrator, Interview, 2011)

How resources are adapted and deployed is related to stances toward difference and beliefs about responsibilities for student achievement outcomes. In this regard, educators in higher-performing

TABLE 5
 Contrasts in Approaches to Curriculum and Achievement Data

<i>Average Performing</i>	<i>Higher Performing</i>
Curriculum revision is seen as a product-oriented endeavor and something that is finished until scheduled for revisiting; curriculum may be out of sync with programs and materials, and little guidance in how to implement it is given.	Curriculum revision is seen as a continuing, revelatory process that includes revamping, rethinking, and retooling to deliver curricula in new ways. Guidance not only in the <i>what</i> of the curriculum, but the <i>how</i> and <i>why</i> is given to newer teachers.
Classroom performance data are seen as disconnected from what is important and therefore results are not effectively used; discussions of data between teachers and administrators are infrequent and optional.	A variety of useful performance data (often selected with teacher input) are generated regularly, shared vertically, and then acted upon to inform instructional changes and curriculum revision.
No specific adaptations for English as a second language (ESL) students are articulated in the curriculum and ESL teachers are often not included in curriculum revision activities.	Curriculum has been adapted to the needs of ESL students and ESL specialists are utilized in the curriculum revision process.

schools in this study showed evidence of the following characteristics, in contrast to their counterparts in average-performing schools: They adapt and deploy resources to provide maximum levels of mainstream classroom inclusion for ELLs and students with special needs; use an extensive array of intervention strategies, including response to intervention (RTI); and pursue and successfully garner funding targeted for extra support after, before, and during school hours and for professional development.

The quality of adaptability evident in higher-performing schools is expressed in the ways that the lines between what is regular classroom instruction and what might be considered an intervention provided by specialists (e.g., special education and ESL teachers) are blurred. A Columbus teacher described the mindset that prevails in her school,

We look at what the child needs and figure out ways to meet those needs without feeling that we need to label. In other schools, in order to provide these services, the child needs to be labeled. We first look at the need and the services and provide it [label or not]. (Interview, 2011)

To make this approach effective, a web of support for teacher capacity building has been put into place in higher-performing schools, often with a great deal of district office planning for relevant and intensive—"not one shot deal"—professional development in coteaching that uses specialist expertise, according to one teacher (Interview, 2011). At Lincoln, an administrator described the reading teachers as "a tremendous component," able to "co-teach or work with students individually, and also hav[ing] a pretty good knowledge of data. They're able to measure growth and talk about strategies to achieve growth with the rest of the teachers" (Interview, 2011).

Providing an array of services is facilitated through the use of coteaching models, as well as AIS and RTI (<http://www.p12.nysed.gov/specialed/RTI/implementation712.htm>). Part of what makes AIS and RTI effective in the higher-performing schools is the collaborative foundation, instructional coherence, and approaches toward data analysis already in place to support them. This collaborative foundation extends to school psychologists and social workers. At Davison Avenue and John F. Kennedy, for example, a team of these specialists, as well as nurse practitioners, work together to provide social, emotional, and physical supports to struggling students and their families.

Another pattern that differentiates the higher-performing schools from average-performing schools is their district administrators' successful pursuit of funding targeted to the needs of their diverse students and to developing teacher and administrator capacity. At John F. Kennedy, for example, a grant to support after-school and morning programs seen as vital to efforts to raise achievement among special needs students and ELLs was pursued and won. Administrators in other districts directed federal stimulus monies to provide professional development to build teacher capacity in using research-based instructional techniques and to new principals on how to be effective leaders in diverse schools.

Higher-performing schools are characterized by fluid deployment of human resources (e.g., ESL, special education teachers, counselors), an extensive range of interventions, and funding targeted to improving diverse students' achievement. Average-performing schools in contrast are characterized by less flexibility in how specialists are used and less evidence of effective coteaching, use of intervention systems, and little success in garnering funding for diverse student or educator enrichment or professional development. These contrasts are displayed in Table 6.

The next section offers detail about one case from the set of higher performing schools as an exemplar of the findings from the cross-case analysis. This case begins with a brief overview of the context of the Dr. Charles T. Lunsford School 19, followed by descriptions of characteristics affecting diverse student performance in this setting.

DR. CHARLES T. LUNSFORD SCHOOL 19: A CASE IN POINT

I think it's very important that we look at our own students. It's not a one-size-fits-all across the district or across the state. We need to identify what our own kids need. We are very, very focused on our own children here and we do it as a team. (Teacher and instructional coach, Interview, 2011)

School Context

As one enters Dr. Charles T. Lunsford School 19 in the Rochester City School District, pass the chattering students hurrying to class in their red, white, and blue uniforms and head toward the main office, an arrangement of plaques will likely catch one's eye. Two display photos of

TABLE 6
Contrasts in Adaptations and Resource Use

<i>Average Performing</i>	<i>Higher Performing</i>
English as a second language is not well calibrated with mainstream instruction; educators struggle with scheduling.	A flexible stance toward the use of specialists, instructional space, and time maximizes levels of inclusion for English language learners and students with special needs.
The use of Response to Intervention (RTI) is in its infancy and/or resistance to RTI is evident.	An extensive array of intervention strategies is used, including effective use of RTI.
Little evidence is shown of successfully garnering grant support for extended day interventions or other special support targeted diverse students, their teachers and administrators.	Funding for extra support targeted specifically to diverse students, their teachers, and administrators is pursued, successfully garnered, and well appropriated.

Dr. Charles T. Lunsford, Rochester's first known licensed African American physician and the school's namesake, and the third displays his motto and words to live by: "Success makes one humble, but mistakes make one wise!" "Love, brotherhood, tolerance, good will." This motto and these words are woven into the story of how a school with 98% of its students living in poverty manages to outperform schools with many fewer challenges. Although across the Rochester City School District, students meeting or exceeding proficiency in 2010–2011 as measured by New York State ELA and mathematics assessments hovered around 26% and 28%, respectively, School 19 students achieved 47% and 79%, with goals of 60% and 80%. With these successes and high expectations has come growing recognition that educators in the "little gem on the hill" (Interview, 2011), as an administrator says some have referred to the school over the years, are doing something special.

School 19 lies within one of the largest districts in New York State, outside New York City, serving over 30,000 students. This urban district has relatively low numbers of ELLs, yet high numbers of African American students and students living in poverty. An administrator described the district organizational structure as one broken into "two houses: operational, and teaching and learning" (Interview, 2011). On the teaching and learning side, the focus is on curriculum and instruction, with school zone chiefs sharing the responsibility for supervising principals. Their charge is to ensure "fidelity to the district curriculum" and that "instruction is focused on student achievement," according to a district administrator (Interview, 2011). In School 19, where students are generally meeting or exceeding the district's achievement targets, however, an administrator explained that the district perspective is to offer support when needed, but "get out of the way when they [school principals] don't need us" (Interview, 2011).

The former principal, now a zone chief, explained that when she came to the school in 2002 and looked at student performance data, it made her physically sick. School 19 was on the state's list of *Schools in Need of Improvement* for not meeting annual yearly progress (AYP) targets. Since 2003, however, School 19 has lived up to its "gem" moniker as a school that staff members do not want to leave, and a place where students consistently perform better than in other similar schools. Although the district had required School 19 educators to implement a reform model in the early 2000s, a current school administrator admits that they have earned the latitude to do what works for them based on their current reputation, and those working in the school assert that they would like to keep it that way. How did School 19 defy the correlations among high diversity, high poverty, and lower student performance?

First, the former principal purposefully promoted the idea of seeing the school as a family and, moreover, behaving like a family committed to tolerance and actively advancing the collective good. A social worker looking back on her first year at the school remembered, "The principal wanted everyone to be a part of what was going on—even school pictures. They [administrators] would hunt you down and call you on the PA if you weren't there. She wanted everyone in the family picture." This "family" then began to have "family" meetings (so named on meeting agendas and bulletin boards) centered on how to help students do better. They also hosted annual "family" picnics with school staff and community members.

Concurrently, the former principal promoted the related idea of teachers and staff members being personally accountable for students—framed broadly. She explained this vision: "Within our school, we saw each child as everybody's child and assumed responsibility for helping that child" (Interview, 2011). Helping a child, in the view of the former principal, evoked Dr. Lunsford's beliefs of love, brotherhood, and good will, and promoted the idea that providing

for the social and emotional support of children is essential and should be expected in a school. Implementing a coconstructed Positive Behavior Intervention System was one of the first steps taken to bring this to fruition. The former principal explained that “teachers, custodial staff and parents wrote the plan—they stuck to it and it worked. Once students were under control, you could teach” (Interview, 2011). This plan “gives [teachers] the accountability piece,” according to the principal (Interview, 2011). It provides explicit and detailed descriptions of target behaviors represented in the acronym CTLS, which stands for “think Caring, Totally prepared, Learn safely, and make Smart choices.” It is displayed prominently throughout the school and includes descriptions of what each of these behaviors sounds and looks like in classes, hallways, the cafeteria, playground, and during arrival and dismissal.

Finally, as individual teacher accountability for School 19 students within a culture of a supportive family was established, the former principal was able to galvanize teachers to develop and implement strategic curricular and instructional changes that, in the words of the current principal, are about a “less is more” philosophy: “We don’t change what’s not broken. We don’t keep adding what’s not needed” (Interview, 2011). Rather, changes are made that have the most impact on student learning and student well-being. A shared commitment to the success of the School 19 family, individual accountability to take care of the whole child, the wisdom of administrators to listen to staff humbly and identify priorities, and the wisdom of teachers to act on priorities judiciously are all at the foundation of what has contributed to higher student performance. In the next section, salient features of practice in School 19 are described.

Linking School Goals to Student Growth

Although school goals are closely aligned with achieving and exceeding AYP targets, at School 19 success in meeting those goals is defined at the level of each individual child. From this vantage point, as one teacher explained, there is “no cookie cutter” approach (Interview, 2011). Rather, achieving academic goals is seen as reliant upon providing the unique emotional and social supports each child needs. Thus, teachers at School 19 do not tend to center their talk on academic goals explicitly, but rather focus on the growth of the whole child as their guide.

To the former principal, this perspective of individualizing goals and the pathways to achieving them by the unit of one child was not always prevalent at the school. She recounted, “We were not really looking at our kids individually” (Interview, 2011). She promoted belief in “educating that whole child,” which meant to her, “If he came without a coat, we got a coat for him. He could then focus on his learning” (Interview, 2011). It also meant exposing School 19 students to inspiring experiences that children in wealthier communities might have, such as going to a circus or dinner theater or learning to play the violin in a free after-school program.

Reversing the Administrative Turnover Cycle and Building a Collaborative Culture

One veteran teacher recounted a time when School 19 leadership was in flux: “We had a very rough period in 2002 to 2003. We went through three administrators” (Interview, 2011). When the former principal and now district administrator was hired, School 19 educators had already

received many different administrators' visions. Throughout this tumultuous period, however, a teacher recounted that School 19 had the benefit of a foundation of teachers "very committed to seeing things improve" (Interview, 2011). Garnering educators' commitment to the principal's vision in 2003 accompanied a strategy to continue to promote that vision more broadly and from within. The principal at the time of this study said she was selected as assistant principal because she could be the "yin" to the former principal's "yang" (Interview, 2011). The principal carried forward the former principal's vision of "no excuses" and "no cookie cutter" approaches toward School 19 children's education. She continued to nurture the family culture that keeps the school a desirable place to be for educators and students alike. The next generation of potential leaders for this building is also within sight. They are those who work on the leadership team and as instructional coaches.

Maximizing student learning and achievement is seen as a communal activity at School 19. Teachers know that they can get help from their colleagues and that administrators will listen to what they have to say, but with the expectation that everyone is pulling her or his own weight. They also know that "courageous discussions," as the principal described them, about individual children's performance will happen on a consistent basis (Interview, 2011). These discussions occur in weekly grade-level meetings, weekly leadership meetings, "on the fly," and in the quarterly formal meetings between each teacher and the principal.

Balancing Mandated Models and Innovation From Within

Instructional programs and practices at School 19 are strongly influenced by the Rochester Curriculum, which incorporates workshop model components from the formerly mandated America's Choice program (<http://www.ncee.org/programs-affiliates/history/americas-choice/>). The district curriculum framework outlines an instructional sequence, including an opening with essential questions, direct instruction, a workshop period, and then closing. Teachers at School 19, however, indicate that direct instruction is deemphasized and student interaction and individual student expression of understanding is emphasized in the school.

This focus on student interaction and expression of understanding works alongside another instructional component that School 19 teachers developed to meet their diverse students' needs: departmentalization. A teacher recounted that in 2004–2005, a group of teachers strategized around the idea of departmentalizing by subject area at the third grade. The former principal required the third-grade teachers to offer a proposal including how they would approach behavior, planning time, grading, the referral process, variation of departmentalization (e.g., by subject, skill, gender), transitions, rituals, and routines and how problems would be handled. The principal listened to their proposal and approved the idea with the caveat that the teachers would be responsible for showing that their idea worked—and it did, according to performance data teachers analyzed over several years. Since then, other teams have followed suit; for example, the sixth grade departmentalized by gender.

Collecting and Using Achievement Data in Real Time

An individualized approach toward instruction and the collaborative culture at School 19 reinforce the use of benchmark and other testing to assess student learning frequently. The idea that

student performance data should be created and used in real time to inform instruction is well embedded in processes and practices at the district and in the school. Part of the emphasis on getting timely data in the hands of teachers came with the former principal, who said that the way benchmark testing had been done at School 19 previously was insufficient. At that time, the district required three benchmark tests that, in the view of the former principal, lost too much time at the beginning of the year trying to discover what students needed. Therefore, she facilitated the work of ELA and math specialists in designing an additional test to be given in the second week of school. This assessment was based on the previous year's state tests.

In addition to using frequent benchmark data, School 19 teachers also have at their disposal a variety of online student performance data systems in literacy and math. Between district benchmarks, online assessments, and other commercially available assessment tools, School 19 teachers are not reliant upon state assessments to adjust their instruction. These data all inform *data meetings*, in which a variety of tables and graphs are used to disaggregate data by student and skill. These meetings and data analysis tools help inform interventions and adjustments.

Deploying Resources to Build Resilience

In School 19, one of the primary pathways to ensuring that interventions are in place so students have the best chance to succeed is through RTI. It was one of the first schools in the district to use RTI. One teacher reflected that, other than a couple of district meetings, teachers were “pretty much on their own” in figuring out how to employ RTI. However, as one teacher noted, although in other schools “people were arguing about when they were going to meet to talk about RTI, we had dinner and just got together.” Just as in their approach to previous reform efforts, School 19 teachers collaborated to make RTI work for their students: They condensed information down to the most essential, used a tool kit they got off the Internet, and hired back a particularly skilled retired teacher for assistance. All of this did not happen without feeling “overwhelmed” at times, as one teacher lamented (Interview, 2011). As another recounted, however, “We were reminded that we could push forward and come up with something great and we ended up adapting” (Interview, 2011).

DISCUSSION

Before discussing the findings, it is important to acknowledge the limitations of this study. First, because multiple case study methodology is inherently bound to a small number of contexts compared to other methodologies, findings are limited in terms of generalizability. Also, because the study sample was determined in part by state assessment scores, it is conceivable that a different set of practices might have been identified using a different metric of academic achievement than that used in this study. Finally, although a variety of measures were taken to match the higher- and average-performing schools on similar demographic characteristics, some variability occurred within and across these schools due to the number of variables taken into consideration. Nevertheless, the findings have some important implications for those interested in the academic achievement of African American, Hispanic, and English language learners. In particular, the results provide some specific contributions to conceptualizations of schools as support networks within which resilience to exo- and macro-level adversities might be mitigated.

The socioecological framework used in this study views student performance through the lens of embedded and interdependent systems, namely classrooms, schools, and districts, where proximal and distal processes occur. Through this lens, findings suggest a correlation between academic achievement among diverse students and proximal and distal processes that are calibrated along the lines of communal stances toward difference, a flexible approach toward the use of resources and a culture of iterative and shared decision-making across micro-, exo-, and macro-levels. As the cross-case findings indicate, these processes are enacted through close engagement and understanding of the population; intensive literacy- and technology-enriched instruction; iterative approaches to curriculum infused with the ongoing collection and use of performance data; and fluid adaptations and deployment of resources (see Figure 2).

The results from this study indicate that the proximal processes by which educators in higher-performing schools engage with their students are dominated by a view that difference does not equate to deficiency, but rather is inherent within the fabric of a community for which appropriate adaptations must be made. Working *with* parents and fostering communication and collaboration from district to school to classroom are seen as imperative to meeting students' needs, as illustrated in the highlighted case study of School 19. Findings also suggest that teachers in higher-performing schools focus intensively on the development of literacy early in a student's elementary years and use technology to assist.

The distal processes of flexible approaches toward the use of resources and iterative and shared decision-making ensure that the curriculum and instructional programs are coherent from class to class and grade to grade, and data are collected to closely monitor how well curriculum and instruction are aligned and provide appropriate support for individual children's development. The finding regarding approaches toward the deployment of resources provides an example of the coevolving nature of distal and proximal processes. This finding suggests that a

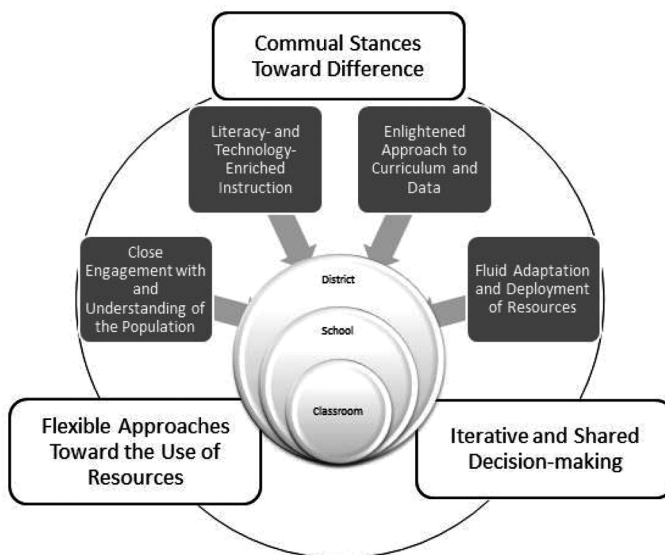


FIGURE 2 Features of higher-performing diverse elementary schools.

self-organizing mechanism involves a constant system of actions and responses between classroom teachers, school-level administrators, non-instructional staff, and district personnel inform the ways resources are used to address the educational needs of diverse students.

IMPLICATIONS AND CONCLUSION

The findings from this study confirm those from other studies that indicate that close engagement between adults and children and collaboration among teachers, noninstructional staff, and administrators can positively affect the performance of ethnically and linguistically diverse students (York-Barr, Ghere, & Sommers, 2007). However, this study also holds some specific implications for practice that highlight the proximal and distal practices and processes within diverse elementary schools that are related to students' higher achievement. First, vertical collaboration from classroom to district offices, facilitated through mechanisms such as monthly data meetings focused on individual student progress, is extremely important. Second, findings indicate the importance of an intensive focus on literacy- and technology-enriched instructional approaches that utilize balanced literacy and differentiated strategies. Third, higher-performing schools show evidence of a focused effort on developing teacher competency to collaborate especially between mainstream and ESL and bilingual teachers, but also involving noninstructional staff members such as school psychologists and counselors.

In conclusion, although a variety of instructional models and federal legislation and incentives have been used to try to improve the academic performance of ethnically and linguistically diverse students, effects on closing achievement gaps have been insufficient in many school settings (Darling-Hammond & Friedlaender, 2008; Vanneman, Hamilton, Baldwin Anderson, & Rahman, 2009). The effectiveness of efforts to increase diverse students' academic performance has been linked to individual student factors and contextual factors that are unique to different school settings and the communities in which they are embedded, making what is working well in one setting not easily transferable to another. As school administrators and teachers face the challenge of heightened accountability to meet and exceed mandated targets for diverse students' performance, this study contributes a framework for viewing classrooms, schools, and districts as coevolving and interdependent systems that, when attuned to the population of students served, have the potential to build resilience to adversity and improve academic achievement among diverse elementary students.

ACKNOWLEDGMENTS

This research was supported by the State of New York and the University at Albany. I also thank the anonymous reviewers and editors of the *Journal of Education of Students Placed At Risk* for their invaluable feedback on this article. In addition, my sincere appreciation goes out to the teachers and administrators at all of the higher- and average-performing schools who participated in this study, and to the NY Kids research team, including Dr. Arthur Applebee, Janet Angelis, Sharon Wiles, Linda Baker, Laura Morrill, Kathy Mrozak, Kathy Nickson, Linda Ranado, Seema Rivera, Patrice Torcivia, Susan Tangorre, and Diane Walshhampton.

REFERENCES

- Applebee, A. N. (1996). *Curriculum as conversation: Transforming traditions of teaching and learning*. Chicago: University of Chicago Press.
- Banks, J. A. (1993). The canon debate, knowledge construction, and multicultural education. *Educational Researcher*, 22(5), 4–14. doi: 10.3102/0013189X022005004
- Banks, J. A. (1997). *Educating citizens in a multicultural society*. New York, NY: Teachers College Press.
- Borman, G. D., & Overman, L. T. (2004). Academic resilience in mathematics among poor and minority students. *Elementary School Journal*, 104(3), 177–195. doi: 10403-0001\$05.00
- Brofenbrenner, U. (1993). The ecology of cognitive development: Research models and fugitive findings. In R. H. Wozniak & K. W. Fischer (Eds.), *Development in context: Acting and thinking in specific environments* (pp. 3–44). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Bruner, J. (1996). *The culture of education*. Cambridge, MA: Harvard University Press.
- Burch, P., Theoharis, G., & Rauscher, E. (2010). Class size reduction in practice: Investigating the influence of the elementary school principal. *Educational Policy*, 24, 330–358. doi: 10.1177/0895904808330168
- Coleman, J. S. (1979). *Equality of educational opportunity*. New York, NY: Arno Press.
- Condly, S. J. (2006). Resilience in children: A review with implications for education. *Urban Education*, 41(3), 211–236. doi: 10.1177/0042085906287902
- Cummins, J., & Taylor, S. (2011). Second language writing practices, identity, and the academic achievement of children from marginalized social groups: A comprehensive view. *Writing & Pedagogy*, 3(2), 181–188. doi: 10.1558/wap.v3i2.181
- Darling-Hammond, L. (2010). *The flat world and education: How America's commitment to equity will determine our future*. New York, NY: Teachers College Press.
- Darling-Hammond, L., & Friedlaender, D. (2008). Creating excellent and equitable schools. *Educational Leadership*, 65(8), 14–21.
- Datnow, A., Lasky, S. G., Stringfield, S. C., & Teddlie, C. (2005). Systemic integration for educational reform in racially and linguistically diverse contexts: A summary of the evidence. *Journal of Education for Students Placed At Risk*, 10, 441–453. doi: 10.1207/s15327671espr1004_6
- Driessen, G., & Slegers, P. (2000). Consistency of teaching approach and student achievement: An empirical test. *School Effectiveness & School Improvement*, 11(1), 57–79. doi: 10.1076/0924-3453(200003)11:1;1-A;FT057
- Echevarria, J., Vogt, M. E., & Short, D. J. (2004). *Making content comprehensible for English learners: The SIOP model*. Boston, MA: Pearson.
- Elias, M. J., & Haynes, N. M. (2008). Social competence, social support, and academic achievement in minority, low-income, urban elementary school children. *School Psychology Quarterly*, 23(4), 474–495. doi: 10.1037/1045-3830.23.4.474
- Folke, C., Colding, J., & Berkes, F. (2003). Synthesis: Building resilience and adaptive capacity in social–ecological systems. In C. Folke, J. Colding, & F. Berkes (Eds.), *Navigating social–ecological systems: Building resilience for complexity and change* (pp. 352–387). Cambridge: Cambridge University Press.
- Fullan, M. (2005). *Leadership and sustainability: Systems thinkers in action*. Thousand Oaks, CA: Corwin.
- Gay, G. (1995). Curriculum theory and multicultural education. In J. A. Banks & C. M. Banks (Eds.), *Handbook of research on multicultural education* (pp. 25–43). New York, NY: Macmillan.
- Gay, G. (2010). *Culturally responsive teaching: Theory, research, and practice*. New York, NY: Teachers College.
- Goldsmith, P. R. (2011). Coleman revisited: School segregation, peers, and frog ponds. *American Educational Research Journal*, 48, 508–535. doi: 10.3102/00028312110392019
- Greene, R. R., Galambos, C., & Young, L. (2003). Resilience theory: Theoretical and professional conceptualizations. *Journal of Human Behavior in the Social Environment*, 8(4), 75–91. doi: 35400011411825.0050
- Han, W. J., & Bridgall, B. L. (2009). Assessing school supports for ELL students using the ECLS-K. *Early Childhood Research Quarterly*, 24(4), 445–462. doi: 10.1016/j.ecresq.2009.08.003
- Hargreaves, A., & Shirley, D. (2009). *The fourth way: The inspiring future for educational change*. Thousand Oaks, CA: Corwin.
- Harper, C. A., & de Jong, E. J. (2009). English language teacher expertise: The elephant in the room. *Language & Education: An International Journal*, 23(2), 137–151. doi: 10.1080/09500780802152788
- Kowalski, T. J., Lasley, T. J., & Mahoney, J. (2008). *Data-driven decisions and school leadership: Best practices for school improvement*. Boston, MA: Allyn & Bacon.

- Ladson-Billings, G. (1994). *The dreamkeepers: Successful teachers of African American children*. San Francisco, CA: Jossey-Bass.
- Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. *American Educational Research Journal*, 32, 465–491. doi: 10.3102/00028312032003465
- Lee, C. D. (1999, April). *Supporting the development of interpretive communities through metacognitive instructional conversations in culturally diverse classrooms*. Paper presented at the annual meeting of the American Educational Research Association Meeting, Montreal, Canada.
- Levine, D. U., & Lezotte, L. W. (1990). *Unusually effective schools: A review and analysis of research and practice*. Madison, WI: National Center for Effective Schools Research and Development.
- Martin, M., Fergus, E., & Noguera, P. (2010). Responding to the needs of the whole child: A case study of a high-performing elementary school for immigrant children. *Reading and Writing Quarterly*, 26(3), 195–222. doi: 10.1080/10573561003769582
- Masten, A. S., Best, K. M., & Garmezny, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology*, 2, 425–444. doi:10.1017/S0954579400005812
- McGee, G. W. (2004). Closing the achievement gap: Lessons From Illinois' Golden Spike high-poverty high-performing schools. *Journal of Education for Students Placed At Risk*, 9, 97–125. doi: 10.1207/s15327671espr0902_2
- McTigue, E. M., Washburn, E. K., & Liew, J. (2009). Academic resilience and reading: Building successful readers. *Reading Teacher*, 62(5), 422–432. doi: 10.1598/RT.62.5.5
- Merriam, S. B. (1997). *Case study research in education: A qualitative approach*. San Francisco, CA: Jossey-Bass.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis*. Thousand Oaks, CA: Sage.
- Nettles, S. M., Caughy, M. O., & O'Campo, P. J. (2008). School adjustment in the early grades: Toward an integrated model of neighborhood, parental, and child processes. *Review of Educational Research*, 78(1), 3–32. doi: 10.3102/0034654307309917
- Nieto, S. (2004). *Affirming diversity: The sociopolitical context of multicultural education* (4th ed.). Boston, MA: Pearson.
- Nieto, S. (2011). *Speaking truth to power*. Retrieved July 13, 2011, from http://www.aera.net/uploadedFiles/Meetings_and_Events/2012_Annual_Meeting/Nieto%20AERA%202012%20essay.pdf
- Nye, B., Hedges, L. V., & Konstantopoulos, S. (2004). Do minorities experience larger lasting benefits from small classes? *Journal of Educational Research*, 98, 94–100. doi: 10.3200/JOER.98.2.94-114
- Oakes, J. (2005). *Keeping track: How schools structure inequality*. New Haven, CT: Yale University Press.
- Oliveira, A., Wilcox, K., Angelis, J., Applebee, A., Amodeo, V., & Snyder, M. (2012). Best practice in middle-school science. *Journal of Science Teacher Education*, 1–26. doi: 10.1007/s10972-012-9293-0
- Patton, M. Q. (2001). *Qualitative research & evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Perie, M., & Moran, R. (2005). *NAEP 2004 trends in academic progress: Three decades of student performance in reading and mathematics* (NCES 2005-464). Washington, DC: Government Printing Office: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics.
- Prince-Embury, S. (2008). Translating resiliency theory for assessment and application in schools. *Canadian Journal of School Psychology*, 23(1), 4–10. doi: 10.1177/0829573508316560
- Rivera, H. H., & Waxman, H. C. (2011). Resilient and nonresilient Hispanic English language learners' attitudes toward their classroom learning environment in mathematics. *Journal of Education for Students Placed At Risk*, 16, 185–200. doi: 10.1080/10824669.2011.585100
- Santamaria, L. (2009). Culturally responsive differentiated instruction: Narrowing gaps between best pedagogical practices benefiting all learners. *Teachers College Record*, 111(1), 214–247.
- Stake, R. E. (2008). Qualitative case studies. In Norman K. Denzin & Y. S. Lincoln (Eds.), *Strategies of Qualitative Inquiry* (3rd ed., pp. 119–149). Los Angeles, CA: Sage.
- Teddlie, C., & Reynolds, D. (2001). Countering the critics: Responses to recent criticisms of school effectiveness research. *School Effectiveness & School Improvement*, 12(1), 41–82.
- Vanneman, A., Hamilton, L., Baldwin Anderson, J., & Rahman, T. (2009). *Achievement gaps: How black and white students in public schools perform in mathematics and reading on the National Assessment of Educational Progress*. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education.
- Wardle, F. (1996). Proposal: An anti-bias and ecological model for multicultural education. *Childhood Education*, 72(3), 152.
- Wilcox, K. C., & Angelis, J. (2008). *What makes middle schools work: Findings from the 2006–7 middle school best practice study in New York State*. Albany, NY: Albany Institute for Research in Education, University at Albany.
- Wilcox, K. C., & Angelis, J. I. (2009). *Best practices from high-performing middle schools: How successful schools remove obstacles and create pathways to learning*. New York, NY: Teachers College Press.

- Wilcox, K. C., & Angelis, J. I. (2010). *Best practices from high-performing high schools: How successful schools help students stay in school and thrive*. New York, NY: Teachers College Press.
- Yin, R. K. (2005). *Case study research: Design and methods* (3d ed.). Thousand Oaks, CA: Sage.
- York-Barr, J., Ghere, G., & Sommerness, J. (2007). Collaborative teaching to increase ELL student learning: A three-year urban elementary case study. *Journal of Education for Students Placed At Risk*, 3, 301–335. doi: 10.1080/10824660701601290

APPENDIX A

Documentary Evidence Check-List (District Level)

Curriculum and academic goals

Curriculum and any related documents for: mathematics, English-Language Arts (ELA), science, social studies

District goals

Principal recruitment and interview materials

Teacher recruitment and interview materials

District-level new teacher/mentoring program materials

*Instructional: Programs, practices, and arrangements

Listing of mandated instructional programs/processes for math, ELA, science, social studies

Process for selecting and approving instructional programs/approaches

*Monitoring and use of data

Description of district system for managing student data

Sample of district-developed assessment

Sample data report provided to administrators

Principal evaluation tools

Teacher evaluation tools

*Interventions and adjustments

District-level student intervention programs (e.g., Academic Intervention Services, English as a second language)

APPENDIX B SEMISTRUCTURED INTERVIEW PROTOCOL (CLASSROOM LEVEL)

1. Please restate your name and your position.
2. How long have you been working as the <insert job title>? What attracted you to this district and school?
3. To what do you attribute your school's level of success with ethnically and/or linguistically diverse students? How does your school define success for these students? How would you describe your success with these students as a teacher?
4. Please describe this school's climate. What are the key priorities for your school? What are the primary challenges facing your school?
5. Describe opportunities you have to collaborate with ESL teachers. How is this collaboration supported and sustained? What is the typical content and outcome of these collaborations?
6. Can you tell me about your philosophy of teaching? What, in your opinion "works"? What doesn't? What do you believe is the role of the teacher, role of the student? How do you see supporting all students' learning in your classroom? In a typical week, could you tell me about the modes of lesson delivery you use including ways you assess student learning? (lecture, small group, large group; projects, tests/quizzes)

7. What sorts of things have you done in your classroom that have enabled the academic success of ethnically and/or linguistically diverse students?
8. Describe how you monitor your students' performance. What assessment data do you use? How are those data used and by whom? Can you give an example of what you have done to help a struggling student?
9. Did you learn about teaching ethnically and/or linguistically diverse students in your educational training? If so, how adequate was that training? What qualities do you think your colleagues saw in you that contributed to your hiring at this school?
10. Have you learned about teaching ethnically and/or linguistically diverse students since you started teaching in this school? Describe your experiences—how helpful have they been? What kinds of things did you learn?
11. What kinds of challenges do you face in teaching ethnically and/or linguistically diverse students? Can you provide an example of a way you have attempted to meet these challenges?
12. If you had to choose the one promising practice that positively impacts ethnically and/or linguistically diverse students in your school, what would it be? Please describe and provide an example.
13. Is there any additional information about your experience teaching ethnically and/or linguistically diverse students you would like to share?