



Consortium on Chicago School Research

**Summary of presentations on**

*Research on High School Reform Efforts  
in Chicago*

**Made at a research conference  
organized by the  
Consortium on Chicago School Research**

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In March 2001 the Consortium on Chicago School Research convened a group of national and Chicago-area education researchers to discuss recent and current research on high school reform efforts in Chicago. In keeping with the Consortium's commitment to enhancing understanding of the factors which affect student learning outcomes, members and representatives of a number of organizations with an interest in high school reform and education research, including teachers, principals, community organizations, advocacy groups, and the Chicago Public Schools were also invited to attend the conference.

The Consortium commissioned written summaries of the formal oral presentations made at the conference. These summaries, reviewed and approved by the speakers, provide an interim record of the findings they presented. A compilation of the final reports of the studies presented will be available from the Consortium later this year.

While the *Research on High School Reform Efforts in Chicago* conference was organized by the Consortium on Chicago School Research, the views presented there and in the following summaries are those of the participants. No formal endorsement by the Consortium's Steering Committee members, their organizations, or the Consortium should be assumed.

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## The Effort to Redesign Chicago High Schools: Effects on Schools and Achievement

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The Center for Urban School Policy (CUSP), under contract to the Chicago Board of Education, began monitoring the implementation of the Board's Design for High Schools in 1997. Adopted by the Board to carry out the goals of the Children First Educational Plan, the Design detailed among its goals an increase in the percentage of students scoring at or above norms on standardized tests, a gain in the high school graduation rate and an improvement in student attendance. The Design's goals also called for a decrease in the student dropout rate and a reduction in the number of schools on the academic watch list.

To achieve these objectives, the Board believed it necessary to fundamentally restructure the system's high schools. As the Design document articulated, "Good schools engage students in learning and teachers in teaching through rigorous, consistent academic expectations and caring, personalized experiences and environments." Thus, it was imperative that the restructuring focus specifically on an increase in academic rigor and a commitment to greater personalization.

According to CUSP study findings, high school students are scoring higher on standardized tests. However, the reason for this increase in scores has little to do with changes actually implemented in the high schools. Most of the "credit" for the rise belongs to two factors: students performing at a higher level in elementary school (accounting for 80% of the improvement in scores), and the installation of promotion gates, which prevent

poorly performing elementary students from entering the high schools (representing 20% of the change in scores).

As for giving students more of a personal stake in their education, CUSP monitors found little real change. The primary tool promoted to enhance personalism, a school advisory where students are offered the opportunity to meet in small groups with a teacher and student peers to explore issues of social and emotional development, never grew to the level of content hoped for and was largely diluted. Junior Academies, an effort to create smaller learning communities within larger high schools, were fully implemented in only seven of the schools studied. Small schools carved from within larger schools were in place in only four of the schools and Career Academies in only 12. As a result, CUSP finds little reason to believe that students' social development has been significantly improved since 1997.

All this is not to say that the redesign has not had some positive effects. First, researchers found that the context of high school education has shifted dramatically—from warehousing and managing student behavior to focusing on serious student learning. A commitment to academic accountability has also helped to foster the installation of higher curriculum standards, particularly in those high schools on probation.

The focus on implementing rigorous curriculum standards in all schools, coupled with a concentration of new resources in schools serving the least advantaged students, has helped to foster



an atmosphere of fairness where all students are offered equal access to learning tools. This sends a powerful message, especially to students from less advantaged backgrounds.

In addition, students have been challenged to work harder, sign on to more credit-bearing courses, and assume a larger role in pursuing their own education. School staffs, as well, have been called on to pitch in and deepen their efforts.

Outsiders, specifically probation managers and external partners, have been invited to help improve the level of education in Chicago's lowest performing high schools. This attitude is in sharp contrast to the traditional posture of excluding outside assistance. Schools served by external partners have added modestly to the number of students reading at the norms between ninth and twelfth grades. It is significant to note, however, that though teachers appreciated the additional help, they felt that it was the teachers who had contributed most to actually bringing about change.

Although the Design envisioned a significant effort to change teacher behavior, both pedagogically and in their relationships with students, the efforts were not intensive enough. Most teachers taught very shallowly in the year 2000; 48 percent narrowed instruction to five or fewer students. Monitors found the demoralized teacher

workforce a major challenge to further efforts to improve high schools.

Also of concern is the realignment of special education instruction, following the settlement of the Corey H. litigation. The number of special education students in the high schools increased by more than 20 percent between 1996 to 2000. Many of these students were mainstreamed into regular classrooms where teachers were ill prepared to deal with their instruction. In addition, special education students were disproportionately enrolled in the city's lowest performing schools.

Monitors also found that the focus on reading during the redesign, while important to enforce accountability and change the context of valuing student learning, has proved ineffective and diverted attention from the substance of core subjects.

As a result of its work, The Center for Urban School Policy makes these recommendations:

- Focus more attention on restructuring schools to enhance personalism.
- Intensify efforts at teacher development.
- Shift the focus of accountability back to the assessment of learning in the core curriculum.

## Who Attends Chicago High Schools and How Are They Doing? Changes between 1994 and 2000<sup>1</sup>

Shazia R. Miller and Elaine A. Allensworth  
*Consortium on Chicago School Research*

Shazia Miller and Elaine Allensworth examined trends in enrollments and outcomes that might be associated with changes implemented by the Chicago School Reform Board of Trustees in Chicago's public high schools. Miller and Allensworth addressed three questions:

- Have the enrollment and composition of Chicago's public high schools changed between 1994 and 2000?
- Have the outcomes of the students improved?
- To what extent can any improvements be attributed to school reform?

The sample of students studied includes first-time ninth graders and students in their first year at academic preparation centers (transition centers), as well as students who drop out between eighth and ninth grade. The last two groups were included here to account for policy changes that might affect analyses of performance over time.

Miller and Allensworth found that enrollment had declined—substantially—over the six-year period. Enrollment reached a peak in 1995 with about 103,000 students and has risen from a low of 93,800 in 1998. About 30 percent of the drop

is directly due to a smaller proportion of eighth-grade students moving on to ninth grade, a result of Chicago's new promotion policy. Because fewer eighth graders in 1996 and subsequent years were moving on to high school than in previous years, increasing numbers of students were kept from enrolling in ninth grade. This had an effect on enrollment in higher grades in subsequent years, as these cohorts of students continued to be small while they moved through high school. Furthermore, students were more likely to drop-out in their first year of high school than in previous years since more students entered at age 16 or higher after being retained in eighth grade or a transition center for a year or two. Overall, Miller and Allensworth attribute more than 60 percent of the drop in enrollment, directly or indirectly, to the new promotion policy.

Other factors with an effect on enrollment include: fewer new students entering Chicago public high schools in recent years, students moving through each grade more quickly, fewer students leaving CPS for high school, and changes in grade level classification.

The research identified a substantial increase in the number of special education students, as well as a higher concentration of special education students in specific schools.

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<sup>1</sup>Following the 9 March conference, Consortium staff joined Chicago Public Schools staff to review various methods of calculating dropout rates and to examine more closely the data on which these calculations are based. The Consortium will produce a data brief describing the calculations involved in creating this statistical indicator.

The study also found that the school system had lost fewer high achieving students between elementary school and high school, a trend that corresponds with the opening of the new magnet schools in all regions of the city.

Miller and Allensworth found improvement in most of the student academic outcomes they studied before controlling for students' individual characteristics. These outcomes include the number of students taking the algebra/geometry sequence, and the number passing an honors

course in freshman year. There has also been improvement in students staying on track, that is, completing enough classes to move from freshman to sophomore year on time.

Miller and Allensworth show that most of the improvement in these measures and CPS high school students' TAP scores can be attributed to changes in the student body, notably, students with higher scores entering the schools as freshmen.

## Transforming High Schools: Creating Communities Through Small Schools

Nicole E. Holland

*Consortium on Chicago School Research*

In 1997, the Joyce Foundation commissioned the Bank Street College of Education, in collaboration with the Consortium on Chicago School Research, to investigate how small schools contribute to the renewal and effectiveness of Chicago's public schools.

Following the enactment of the 1988 Chicago School Reform Act, a group of small schools was created at the elementary and high school level as a way to revitalize the school system. The new schools targeted African American and Latino students in some of the most struggling schools on the city's west and south sides. Keeping in mind the body of national and local research indicating that small schools can make a difference in students' lives, the Board sent out a request for proposals that resulted in the approval of 24 grants for planning, creating and supporting small schools. Presently, Chicago administers over 100 small schools in its system.

According to the Reform Board's resolution, small schools were to be "characterized by: (1) a small number of students, usually no more than 100-350 in elementary schools and 500 in secondary schools; (2) a cohesive, self-selected faculty supported by like-minded parents; (3) substantial autonomy as to curriculum, budget, organization, personnel and other matters; (4) a coherent curriculum that provides a continuous experience across a range of grades; and (5) an inclusive admissions policy that gives weight to student and parent commitment to the school mission."

The new small schools took a variety of shapes. Several schools are freestanding. They have their own space, budget and principal. Some schools are

housed in a multiplex where schools share a building and a principal, but have their own unit numbers and act independently from the other schools in the building. A third type is the school-within-school where the small school is located within a larger school, sometimes referred to as a host school. Finally, there are multi-schools where the entire building is reconfigured into schools-within-schools.

Quantitative data were collected from 22 schools-within-schools located in eight buildings, 27 schools-within-schools located in three multi-schools, and six freestanding schools. Qualitative data were collected from several small schools, among them were three small high schools: one freestanding, one multiplex and one school-within-a-school.

The data revealed that teachers in small high schools did not differ significantly from their colleagues in conventional high schools in terms of educational background and teaching experience. Nonetheless, teachers in small high schools had significantly more favorable opinions about their work environment than teachers in conventional schools. Teachers in small schools believed that their schools provided them with strong and supportive collegial environments. These teachers also believed that their opinions were valued in school-wide decisions; that they were supported by their colleagues and school leaders; and that they were exposed to helpful professional development opportunities. The teachers in this sample trusted, cared for, and believed in their school leaders and fellow teachers. In turn, these teachers became part of a formidable force that expressed

great concern for the well being and academic development of their students. The school size enabled teachers to know their students well; to involve them in constructive academic activities; and to help prepare them to be well-rounded, critically thinking, productive adults.

There are some faculty concerns, however. There is a much greater chance of teacher burnout in small schools. Teachers are challenged to work longer hours and wear multiple hats. Since the faculty is small, the staff is fragile and losing even one member (for illness, administrative duties, etc.) can make a big impact. When a charismatic leader surfaces in a small school this can be problematic if the school becomes more about that person and less about the school climate. It is important that small schools create environments that can be sustained in the event of staff turnover. Finally, a particular concern for teachers who work in schools-within-schools is that they often feel stretched between the professional commitments (teaching responsibilities, staff meetings, etc.) of their small school and their host school.

Focusing on the effect small schools exert on high school students, the data showed that benefits for students include: higher attendance rate, lower dropout rates, higher course completion rates, higher grade point averages, and fewer course failure rates than students in conventional high schools. Even though small high schools had lower dropout rates, on average, students in these high schools were learning slightly more reading

than students attending other high schools, controlling for demographic differences. While these data are encouraging, it is important to recall that the new small schools were created in some of the most academically struggling schools in the city where many students entered reading below grade level. Thus while the students in these schools are making strides, many are still not reading at national norms.

Beyond the subject matter being presented in classrooms, research also suggests that students in small schools are learning important lessons about life. This type of learning often results because of the relationships formed and the sense of responsibility assumed by every member of the school community. Further, these types of lessons are often the ones that have a positive effect on students' attachment to and persistence in school.

The data from the study lend support to the idea that small schools can be a positive force for change in Chicago. The concept of small should not be thought of simply in terms of numbers, but rather in terms of how smallness can act as an enabling force. In other words, the creating and sustaining of small schools should focus on how size can facilitate the goals of a school, and enable positive teaching and learning environments. Given the appropriate time, support and resources, small schools seem to be a useful strategy for strengthening Chicago's public school system.



## Research, Curriculum Development, and Collaborative Learning about Whole School Change

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The partnership between the University of Illinois-Chicago College of Education and Thomas Jefferson Academy began with several small-scale projects to improve the learning outcomes for students at Jefferson Academy. Over time, however, the partnership evolved to encompass a much larger project in whole school change. The bridge to this larger project was a year-long collaboration to develop a curriculum centered on freshman writing development.

The theoretical basis for the topics covered in the writing curriculum focused largely on Latino students' beliefs about their future, the connection between these beliefs and students' engagement with the school; and the roles that school and family play in enabling or inhibiting a student's emerging sense of self.

The Jefferson/UIC collaboration was grounded in part on a study of the hoped-for, expected, and feared selves of 30 ninth grade students of Mexican descent attending an urban high school in the Midwest, part of a larger class of over 400 students who responded to a detailed survey about their school lives and future aspirations. Overall, students expressed high expectations for their educational futures and for a wide range of careers. At the same time, many of them explicitly fear a future that is a continuation of the work and social lives of their parents. The findings further indicate that students' hopes for their future and their strategies for achieving their goals are deeply embedded in the context of their families' idea of

how to achieve success. Students are seldom able to outline the steps necessary to ensure a successful transition from high school to college or from school to career. When asked to describe the steps one must take to matriculate to college, the majority of students mentioned a single strategy: "Work hard and follow the rules," the formula most often voiced by their parents as the way to achieve one's goals. The school setting appears to have a limited influence on procedural knowledge. Overall, students were relatively consistent in their description of student-teacher relationships as impersonal in nature and lacking a sense of caring.

Based on these findings, the collaborative team set out to build a curriculum that would consider the issues students expressed, specifically the issue of imparting procedural knowledge as well as the issues of caring, consistency and structure required on the part of the school.

The collaborative team met every two weeks to create "prompts" for the writing curriculum, prompts that would address students' need for understanding the connection between school performance and their aspirations for the future.

According to the teacher leader involved in the collaboration, the curriculum project proved a success for several reasons. First, the social relations of the work itself were intrinsically rewarding to teachers and to the university faculty. Second, all those involved were so engaged that they wished to extend the project to the whole school, inviting UIC to become the school's external

partner. Third, early results from students' work are most encouraging. The freshman class reduced its attrition rate entering sophomore year, in contrast to the preceding year's freshman class, from 19 percent to 10 percent of the class. A year later, TAP reading scores for freshmen and sophomores increased 28 percent. More research, however, is needed to see if these effects hold.

Concerning current initiatives regarding whole school change, the collaboration revealed that in the context of traditional high schools, opportunities for whole school change are limited. The challenge for responding to Latino dropouts in traditional comprehensive high schools becomes, in part, the creation of opportunities for students to gain the knowledge and the affective belief that their future hopes are attainable through educational engagement.

As a useful mid-course framework for organizing the initial whole school change efforts thus far, the research team refers to the five essential supports for student learning developed by the Consortium on Chicago School Research, which the Chicago Annenberg Challenge published as the characteristics of high-performing schools.

1. *"Strong school leadership is facilitative and inclusive."*

The UIC/Jefferson partnership focused on building facilitative, inclusive leaders at the level of department chairs and coordinators. The leadership capacity of the department chairs at Jefferson is being supported by the principal leadership team, under the shared belief that strong high schools have strong academic departments.

2. *"Effective teachers have a shared/clear vision, trust each other, collaborate, share an understanding of practice and goals."*

The issues of professional trust, collaboration, shared understanding and shared decision-

making are being addressed primarily by emphasizing the importance of departmental communication.

3. *"Engaged parents and community make a difference in schools where the principal actively draws on community resources."*

In this instance, it was the principal leadership at Jefferson, with the support of its external partner, which initiated a cluster model of community school improvement. The plan involves the high school developing a cluster of communication, planning, and problem solving groups with its feeder elementary and middle schools. The UIC/Jefferson team is also formulating a research project to better involve parents in the whole school change process.

4. *"A positive climate for learning involves high academic expectations, order, personalism, high-student-teacher trust, high student-adult ratio, physical and psychological safety and staff stability."*

To change students' perception about the actual procedures involved in reaching their future goals, new approaches to student advisories were piloted. Also, content about futures aspiration was incorporated into academic coursework that was piloted in the freshman writing curriculum.

5. *"High quality instruction is interactive."*

The team has begun a school-wide effort to understand the new Illinois Teacher Certification Renewal law as a genuine opportunity for every teacher to examine what the profession defines as good teaching and to design an individual professional plan that will pay off in student learning. From the experience at Jefferson, it is apparent that school-wide instructional improvement requires a commitment from



teachers, a school climate of support, and resources to support teacher commitment to instructional improvement.

Over the course of the year, the school/university team has learned that, though collaboration is a time-consuming process, teachers at Jefferson are willing to work together. However, the problem of scarce teacher-time must be addressed and school leadership can play a significant role in solving this problem.

The team also found that the research on Jefferson students' future goals suggests useful ways to think about students' motivation and their understanding about their engagement in the

educational system, as well as new ways for a school to respond to this understanding in classes and in advisories.

Finally, the team pointed out that the details matter. Getting hallways cleared between classes and addressing the issues of poor attendance and chronic tardiness have a bigger impact on the course of learning than one might suppose.

Though it is premature to claim any measurable results of the work carried on as school/university partners, it is expected that the work at Jefferson will produce continued measurable improvement. However, it is essential that the initial research effort be sustained longitudinally and used for further school decision making.

## Teacher Learning Counts: Improving Instruction in One Urban High School Through Comprehensive Staff Development

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Many of this country's large urban high schools are failing most of their students most of the time. Given the constraints for dismissing inept teachers and the difficulties of attracting and retaining highly qualified teachers for urban schools, a large part of the solution appears to lie in developing the talents of the existing teaching population

In September 1998, the principal and assistant principal at Manley High School came to the University of Illinois College of Education to seek help in improving the learning opportunities for students at Manley, an urban high school three miles west of Chicago's Loop that serves a low-income, African American population of about 600 students. Manley was in its third year of probation.

The initiative created in response to the administrators' request for help included the resources of a number of constituents: a college of education at a public, urban university, several philanthropic foundations, the Chicago Public Schools, and the leadership of the school itself. The UIC College of Education released the time of one of its adminis-

trators with a background in reading research and education reform to develop the proposal and coordinate the project at the school.

Four content specialists known as teacher leaders were brought into the school on a full-time basis to serve as teachers, consultants, and mentors to other teachers in the four major content areas: reading/language arts, science, social studies and mathematics. The focus was to improve instruction in the individual disciplines and integrate reading and writing skills across the disciplines.

Manley is organized into a freshman academy and five small schools that include business and technology, graphic communications, medical arts, foods and hospitality, and construction. All ninth graders attend the freshman academy. At the end of the freshman year, students select the small school of their choice and take one career class in that small school during subsequent years. About half of the 50 teachers at the school had more than 20 years experience. In 1998, the principal hired a number of new young teachers qualified to teach in at least two content areas.

In a previous research study at Manley, Joseph Kahne of UIC and Melissa Roderick of the University of Chicago documented through classroom observation that the overall quality of instruction at Manley was low and failed to focus on clear objectives, conceptual understanding, and higher-order thinking skills.

Based on these observations, a proposal was developed to improve the quality of instruction. Dubbed the Interactive Writing and Reading Across the Curriculum Program (IWRAC), the goal of IWRAC was twofold: (1) improve students' reading abilities through provision of reading courses for all freshman and sophomore students, and (2) improve teachers' abilities to support student learning in their own content classrooms.

The means to achieve these goals involved an intense professional development program centered on the four content specialists. Additional staff development was provided by the reading teacher leader for the four instructors who agreed to become reading teachers.

The teacher leaders also worked closely with the four academic departments to develop units that incorporate "best practices" in their content areas as well as in the reading and writing strategies of IWRAC. Planners designed development activities based on the principles of effective staff development, including: (1) content focus, (2) needs groups, (3) long term and sustained support, (4) coherence, (5) active involvement by students and teachers, (6) time support for professional development, (7) top down pressure/bottom up support (external pressure from the administration for teachers to change coupled with support of teachers for one another to work harder and smarter), (8) principal support, and (9) trust and respect.

The findings regarding implementation of the initiative show that the project was successfully implemented in the first year. Talented staff was hired to direct the project. Also, observations showed teachers to be engaged and reflective.

Teachers focused on well-regarded instructional strategies and strong connections were made between what teachers were learning professionally and what they presented in their own classrooms.

From the teachers' perspective, the permanent presence of the lead teachers and the fact that they also teach in the school has enabled relationships of trust and respect to develop and these relationships are providing for meaningful involvement by teachers. In addition, teachers note that the integration of all the curricular decisions, the school wide professional development and intensive one-on-one work with teachers has helped support a more professional school culture.

According to the data collected, classroom practices improved for those teachers who worked closely with the initiative staff, but not for others. Test scores at Manley also improved significantly during 1999-2000. The percentage of students reading at grade level increased from 6.8 to 15.9 percent. The percentage of students whose math scores were at grade level increased from 22 to 27 percent.

Despite all these gains, some tensions and conflicts have arisen between initiative staff and teachers. This is to be expected, but a challenge in such a situation is finding ways to work with staff that recognizes and shows respect for the talents of teachers while simultaneously communicating the fact that changes in teacher practice are mandatory.

To conclude, it seems that implementation appears to be aided by several factors, including:

- recruitment of talented staff,
- significant support from the administration,
- outside pressure to improve the quality of instruction, and
- for teachers, significant and multi-year supplemental funding that enables a sizable infusion of support.

The initiative's ability to foster meaningful change in teacher practice appears related to factors that include:

- a clear emphasis on academic priorities and literacy in particular,
- a multifaceted approach that combined school

wide professional development, one-on-one coaching, modeling of high-quality practice, and purchase of appropriate curricular materials, and

- alignment of professional development and school change efforts around a specific set of desired outcomes and educational/curricular strategies.

## Well Shut My Mouth Wide Open: Cultural Modeling as a Disciplinary Framework for Reform in an Urban High School English Department

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Many in education have speculated that the differences in levels of achievement across communities based on ethnicity/race may be attributed, at least in part, to a cultural mismatch between the school and the home/community of students.

When Northwestern University researcher Carol D. Lee entered Brown High School (a pseudonym) in Chicago in 1995, she brought with her a framework for the design of a curriculum that takes into account the type of culturally based knowledge that students in a school such as Brown bring with them every day from their homes and their communities—a knowledge quite different from that of the normal culture of school.

The students at Brown High School are all black. Sixty-nine percent of them are considered low income. Their graduation rate in 1994-95 was 65 percent, compared to the state graduation rate of 80 percent. On all standard measures of achievement, they were doing poorly. Lee entered Brown to discover if introducing a cultural modeling framework in the English language arts curriculum could make a difference.

Central to her research was the fact that Lee taught one class in the curriculum herself for each of three years. As a result, she was able to document some of the important human development issues that she describes as key in understanding curricular reform.

The cultural modeling framework that was implemented at Brown focused on a student's response to literature and to written composition. The paper presented here looks only at the former. Lee designed the curriculum with reference to five elements: (1) generativity in the discipline, (2) participation in structures, (3) instructional discourse, (4) routine practices, and (5) use of semiotic artifacts. The research paper limits its discussion to the first three of these elements.

Generative ideas are ones that, if mastered, allow one to carry knowledge over and apply it in a variety of situations. For example, in literature, the ability of a student to understand symbolism should translate across genres to allow the student to recognize and understand symbolism whether it appears in a poem, a short story, or a rap song. Generative ideas give students power to understand a concept and apply that concept in a variety of situations.

District level curriculum standards in the Chicago Public Schools in the area of reading do not reflect such generativity. There is a repetition of concepts across grade levels, with no clear reason why a concept may be listed at one grade level and then not picked up again until two grades later. Lee and other researchers have argued that this approach to the literature curriculum does not prepare students to learn how to tackle the kinds of interpretive problems they will meet across national literature and genres.



In the cultural modeling framework, one of the goals is to help students focus on strategies they use to tackle problems of symbolism *outside of school* and to show them how to apply this prior knowledge to the problems of literature they will tackle *in school*.

The cultural modeling framework identifies the types of generative concepts in literature, such as irony, satire, and symbolism. Next, designers develop cultural data sets from the home/community experience of students. Once the generative construct is chosen and the data sets are in place, designers select canonical texts in which the generative concept is central to understanding the text. Because Lee's target audience was African American and because the goals of the curriculum include human development dimensions, she chose cultural data sets involving language use as well as rap music and rap videos, and consciously selected canonical African American texts, such as Toni Morrison's novel *Beloved*, as the core of the wheel of texts, while works by authors such as Shakespeare, Amy Tan, William Faulkner and others formed the spokes.

Reorganizing the structure of the curriculum posed a number of challenges which Lee documents including: the problem of inviting teachers to examine their existing belief systems, as well as procedural problems like dealing with district-level mandates on selection of texts, buying texts for each grade level, and maintaining a system to track the texts.

The second element of the cultural modeling curriculum—participation structure—includes the following characteristics: (1) use of African American English Vernacular discourse norms, (2) a system of taking turns in which students, as well as teachers, initiate ideas, and (3) an expectation that all claims are supported with evidence from the text. Implementation of this element showed a significant finding—according to Lee, patterns of high levels of student reasoning emerged in the absence of direct monitoring of the discussion by teachers.

Changing the routines of instructional discourse did present some challenges, however. When students were given space to talk, African American discourse norms kicked in and teachers had to make an effort to listen and direct students to offer evidence from the text. Another challenge involved helping teachers feel comfortable sharing the floor with students.

In an effort to measure the outcomes of the cultural modeling curriculum, Lee built in a separate system of assessments. She did not believe that TAP scores used by the school district could capture the literary reasoning that was the focus of the design. Also, she wanted a measurement that would help the school develop routines to provide teachers with regular feedback on student progress. Finally, the separate assessment served to provide the project with data on student progress that could be broken down teacher by teacher.

From the assessments used, the project showed evidence of students with low reading scores on the TAP engaging in complex reasoning about challenging canonical texts. Also, Lee's multiple-choice assessments showed very different levels of competence than school wide scores posted on the TAP.

Lee offers one caveat concerning the relationship of the decisions made at the district level with school curricular reform. As she notes, "From the standardized assessments, to union rules for changing the work day, to imposed reading lists, courses of study, and endless lists of objectives in the form of standards—all individually and collectively communicated a message and a set of constraints pointing the school toward mediocrity."

Regarding the human dimension of the puzzle, Lee notes that for real reform to work, teachers must be viewed as whole human beings and administrators must acknowledge that teaching is an intensely personal commitment. As for students, reformers must acknowledge that school is not only a place for academic learning, but also for social and emotional development. From what Lee

and others observed, the districts' formula for dealing with this personal dimension, the advisory, had little impact at Brown.

Lee concludes with a series of recommendations. Among them:

- Teachers in urban school districts need to be paid wages competitive with more affluent suburban districts.
- A teacher's workday needs to include time for planning and professional development.
- Urban high schools need expertise with each core academic department to support teacher learning.
- Teachers, teacher-leaders and administrators should be rewarded financially for students' success.
- Each urban school should develop its own culture of teacher research as a resource for professional development.
- Districts need to examine the instruments used to assess achievement to be sure they are truly tied to the academic standards of the district.



## Developing a Teacher Community that Advances Latina/Latino Students in Mathematics: Exploring the Origins of a Successful High School Department

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**B**egin with a Chicago public high school that serves low-income Latina/Latino students (many of whom have been told at some point that they are not “math people” because they lack the basic skills of algebra). Look further and discover a senior class where 40 percent of the students are taking and succeeding in AP calculus.

This paper details the story of how a successful math department grew in a high school where normally low-income Latina/Latino students would not be expected to perform well in school math. First, the authors review the literature on effective math learning environments for Latina/Latino students, literature which suggests that there seems to be a lack of focus on teacher community. Next, the authors fill in the history of the teaching community at Union High School, describing its members and the levels of student success in the math department. Through teacher interviews, the authors trace the origin of the teaching community to a pair of teachers with unusual leadership skills and a catalyzing event: a five-year partnership with a local university. In addition, the authors suggest that teachers’ own autobiographies may play a part in the manner in which the community was formed and sustained. Finally, they discuss the potential and limitations for transfer of this community to another site.

A literature review shows that students of all backgrounds can flourish in classrooms where, among other things: teachers have solid mathematical knowledge and believe in their students; students are adequately supported to understand rigorous math; real world contexts are provided for their learning; and students are encouraged to work with their peers. But where do such teachers come from? A number of researchers have begun to emphasize that teachers’ relationships structure their work and lives in school.

Rochelle Gutierrez argues that at Union High the department is the primary source of student success because the larger school-wide culture and administration are not characterized as focusing on academic press. While large numbers of students pursue advanced math, the authors do not witness similar patterns in other academic subjects.

The authors describe several key elements that characterize the math teacher community at Union High. These include:

- developing and sharing their material,
- communicating and reflecting on students and instruction,
- reinforcing to teach each other that all students can learn calculus,

- planning for classes inside and outside of school,
- rotating their course assignments,
- placing students and their needs at the center of their work, and
- visiting each other's classrooms.

In interviews with math teachers at Union, four themes emerged as important for community building: (1) university partnership and original visionaries, (2) supportive colleagues, (3) recruiting and socializing new members, and (4) teachers' autobiographies.

Regarding university partnership, although the partnership was initiated so that math teachers could become trained in new methods, what evolved from the training sessions and discussions was a kind of community building and trust among the teachers and University faculty/staff that served to strengthen their philosophy to nurture students.

The manner in which the department community evolved seems to have sustained the original belief of a few teachers that Latino students could successfully complete calculus while in high school. The combination of the professional development of more veteran teachers into a reform-oriented style of teaching, as well as the influx of new members who either shared their philosophy, or who were socialized into a way of thinking and interacting with students, seemed to be a powerful force for collective beliefs and action.

The authors note that the university partnership was instrumental in providing an incentive for veteran teachers to get involved and develop a sense of belonging to something collective, but the partnership also provided the math

department with the formal means for socializing new members.

Finally, although teachers did not expressly state in their interviews that their lived experiences contributed to the development of their math community, there is evidence that their autobiographies may have played a role. It is significant to note that six of the eleven members had other careers or significantly different academic training before entering teaching. In addition, a number of teachers in the department have personally experienced what it means to be "marginalized" in society. The authors suggest that because of their unique backgrounds, the teachers in this study were able to accept a new way of teaching, a new way of interacting with students, and/or a new way of interacting with each other than is typical in large bureaucratic school systems like Chicago.

How transferable is such a teacher community? The authors state that it may be that all four themes discussed above need to be in place before teachers begin to develop a community that advances Latina/Latino students in mathematics. There is some evidence that this success can be transported to another setting, however, since the math department chairperson has since moved to another school and has begun to plant the seed for a similar community.

In conclusion, the authors suggest that a focus on teacher communities and their dynamic nature needs further study. Particularly, research should be focused on the powerful nature of social context and teachers' lives. Future research might consider longitudinal studies of how groups of math teachers come to understand and implement reform in their local schools, paying attention to the social context of the teaching, the nature of support teachers receive, and teachers' autobiographies.

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# Consortium on Chicago School Research

## Mission

The Consortium on Chicago School Research is an independent federation of Chicago area organizations that conducts research on ways to improve Chicago's public schools and assess the progress of school improvement and reform. Formed in 1990, it is a bipartisan organization that includes faculty from area universities, leadership from the Chicago Public Schools, the Chicago Teachers Union, education advocacy groups, the Illinois State Board of Education, and the North Central Regional Educational Laboratory, as well as other key civic and professional leaders.

The Consortium does not argue a particular policy position. Rather, it believes that good policy is most likely to result from a genuine competition of ideas informed by the best evidence that can be obtained.

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