Inter-organizational Collaboration: A Strategy to Improve Diversity and College Access for Underrepresented Minority Students

Hugh Mehan [1]
The Center for Research on Educational Equity, Access, and Teaching Excellence
University of California San Diego 92093-0036

Abstract. *This efforts of the Center for Research on Educational Equity, Access, and Teaching Excellence (CREATE) at the University of California, San Diego (UCSD) to improve the opportunity that low income students of color to attend colleges and universities by assisting public schools in the San Diego California adapt the principles developed at the highly successful Preuss School on the UCSD campus to their local circumstances are treated as an example of organizational learning. CREATE, operating as an "educational field station," serves as a mediator between the Preuss School and local schools that have expressed an interest in building a college-going culture of learning in order to improve the education of underrepresented minority students.*

Keywords: *Organizational learning, mediated action, educational field stations, college-going school culture, design research, improving preparation for college*

Introduction

This paper describes the efforts of the Center for Research on Educational Equity, Access, and Teaching Excellence (CREATE) at the University of California, San Diego (UCSD) to improve the opportunity that low income students of color to attend colleges and universities by assisting public schools in the San Diego California adapt the principles developed at the highly successful Preuss School on the UCSD campus to their local circumstances. CREATE, operating as an "educational field station" (Duster et al., 1992), serves as a mediator between the Preuss School and local schools that have ex-

pressed an interest in building a college-going culture of learning in order to improve the education of underrepresented minority students.

This paper is organized as follows: (1) the issue of inter-organizational collaboration between the Preuss School and local public schools as mediated by CREATE is framed in terms of organizational learning; (2) this particular collaboration is animated by the social fact that universities in general, the University of California in particular, face a massive problem of the under representation of minority students on college campuses exacerbated by the elimination of affirmative action policies; (3) the "educational field station" concept is compared with "change laboratories; (4) CREATE and the Preuss School are depicted as a model system for school improvement, and (5) the adaptation of the structural and cultural features of the model by a neighborhood school is described.

A Case Study in Organizational Learning [2]

The project I describe in this paper involves inter-organizational collaboration between UCSD, its on-campus charter middle/high school (The Preuss School) and a middle school (Gompers Charter Middle School, GCMS) located in an inner-city San Diego neighborhood. The vast majority of children attending these schools are from low-income, minority group backgrounds. The adaptation of principles by faculty of GCMS as mediated by CREATE that I describe below is treated as a case study in organizational learning.

Learning has traditionally been treated as an individual process, an activity located in an individual's mind or memory. Spurred in large part by researchers in the cultural historical activity tradition (Cole 1996; Wertsch, 1991; Engeström 1987) influenced by Vygotsky, learning has been approached as a distributed process. This re-orientation, in turn, has led researchers to attend closely to the relation between individual participants in joint activity and the context in which that activity occurs. As a rule, studies of distributed learning and thinking have tended to radiate "outward" from individuals to their settings. In the present project, the analytic lens is reversed; we seek to understand learning as a process distributed among organizations and, by the same logic that applies to all studies of distributed learning and cognition, seek to understand how organization-level factors shape the behaviors of the people who constitute the organization and the ways in which inter-institutional coordinations and discoordinations result in, or fail to result in, learning at the level of the institutions and their members manifested in more effective joint activity. Furthermore, despite an explosion of interest in "learning organizations," this work has been largely confined to the business sector (e.g. Argyris & Schön 1978; Argyris, 1991; Senge, 1990; Wenger, 1998) and has not addressed critical problems of *educational* organizations. This paper is one attempt to address that imbalance.

Following Weick & Roberts (1993), Hutchins (1995), and Hubbard, Mehan,

and Stein (2006), we can say organizational learning develops between people but is not located in any one individual's mind or memory; organizational learning is an activity actualized in patterns of institutionalized behavior rather than a property of the individual mind. In this way of thinking, education is viewed as a process of interaction involving multiple individuals engaged in common activities that shape and are shaped by the institutions in which they occur (Newman, Griffin, & Cole, 1989; Yonezawa, Jones & Mehan, 2000; Hubbard, Mehan, and Stein 2006). As individuals work toward shared goals, they together create new forms of meaning and understanding that derive from and create the situated practice in which individuals are co-participants. The current project—a sort of "design experiment" in arranging for inter-organizational collaboration–grows out of these prior efforts.

In this case study, we look for organizational learning in the intersection of encounters between organizational units rather than in any one organizational unit or department in isolation. By making interaction at intersection encounters the unit of our analysis, we seek to look at how the ideas or plans espoused and implemented by social actors in one part of the system affect actors in other parts of the system. In this case study, we look for organizational learning in the intersection of encounters between organizational units rather than in any one organizational unit or department in isolation. The research problem is to determine whether, through inter-organizational collaboration, the UCSD-based school and the inner city school can create a learning system that will enable the latter to achieve at a comparable level of achievement to the former. The collaboration will require organizational learning in three institutions: UCSD, The Preuss School, each of the two inner city schools. These relations are presented graphically in Figure 1.
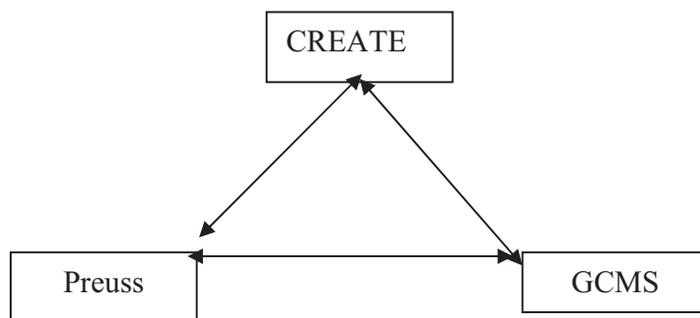

FIGURE 1   Relations Between Preuss and GCMS, Mediated by CREATE UCSD

If this effort is successful, it will bring about increased enrollment of historically under- represented students in the University of California and will serve as a model for how others can implement such learning systems in the future.

The Problem: Minority Students are Underrepresented in Colleges and Universities

US colleges and universities face a problem of massive under representation. Black and Latino/a students are not enrolled in colleges and universities in proportion to their percentages in high school or the general population. Whereas 66.9% of white students age 18-24 participated in college in 2000, only 61% of African American, and 53.1% of Latino/a students participated in college in that same year (Harvey, 2002). College graduation rates unfortunately reflect this same pattern: 38% of African American and 46% of Hispanics ages 25-29 completed Division I colleges in 2000 while 59% of whites and 66% of Asians of that same age did so (Harvey 2002).

The problem of under representation is especially evident at the University of California. In 1997, the year before the Regents eliminated the use of students' race as a factor in admissions decisions (i. e., Affirmative Action), 18.8% of the incoming freshmen on the 8 UC campuses were from underrepresented minority backgrounds. In Fall 1999, this percentage dipped to 16.9%. By Fall 2001, this figure increased to 18.6%, and by 2006 to 21.7% (UCOP, 2006a). Whereas the University can take some satisfaction from the fact that the percentage of under represented students has returned to the pre-Prop 209 levels, this statistic is misleading for two reasons.

First, under represented minority students are not evenly distributed throughout the UC system. Only 17.4% of the incoming class of 2006 at Berkeley, 15.2% of the incoming class of 2006 at UCLA, and 15.1% of the incoming class of 2006 at UCSD are underrepresented minorities. By contrast to these enrollment figures for the three most competitive campuses in the UC system, 27.4% of the class of 2006 at UC Riverside, 19.6% of the class of 2006 at UC Santa Cruz, and 24.1% of the class of 1006 at UC Merced are populated by underrepresented minority students (UCOP 2006a).

Second, the enrollment of underrepresented minority students in UC is still well below their proportion in high school and the general population. Whereas Chicano/Latino/a students comprised 35.9% of California Public High School Graduates in 2004, they comprised only 14.9% of new UC freshmen in that year—a gap of 21%. A similar gap exists for African American students: Whereas African American students comprised 7.3% of California Public High School Graduates in 2004, they comprised only 2.9% of new UC freshmen in that year—a gap of 4.4% (Studley 2004).

CREATE: An "Educational Field Station:"
Creating a Model System for School Improvement

The historical circumstances animating this investigation of organizational learning arise from a particular political action. In 1995, the Regents of the University of California eliminated "affirmative action," the practice of using

race, ethnicity, and gender explicitly as factors in admissions. As many critics of the Regents' decision feared, this decision had disastrous consequences for the composition of the undergraduate student body, graduate, and professional schools (such as law, business, and medicine). Each campus in the University of California system (there were 9 at the time; there are now 10) developed plans to achieve a diverse student body in the absence of affirmative action policies.

In an unprecedented move by a major research university, The University of California San Diego (henceforth, UCSD) responded to the challenge of developing a diverse student body in the absence of affirmative action by establishing the Center for Research in Educational Equity, Access, and Teaching Excellence (CREATE) and the Preuss School on the UCSD campus in 1997. CREATE is responsible for: (1) coordinating campus outreach efforts; (2) building and maintaining the on-campus Preuss School UCSD (http://preuss.ucsd.edu") as a model of excellence and equity for an urban public school system; (3) extending the model to neighborhood schools; and, (4) stimulating and conducting basic and design research on educational equity issues.

To help build college-going cultures in underserved schools, CREATE serves as an "educational field station" (Duster et al 1992) in the San Diego region. Educational field stations are analogous to agricultural field stations—centers that developed and disseminated research that assisted farmers improve the quality of crop production in the 19th century. Based on the logic of the UC agricultural field station, other UC research programs, including those in space and ocean exploration, structural engineering, health care, and computer technology have developed that contribute to economic development and the public good under the aegis of the university's broader public mission.

Just as the University has risen to the challenges confronting the state from previous *economic* and *industrial* shifts in our society, now the University must rise to the challenges facing us from the recent *cultural* and *demographic* shifts in our society. California is becoming an increasingly diverse society. At the beginning of the 20th century, the so-called "Anglo" population constituted the vast majority of the state's population; Latinos, African Americans and Asian Americans were in the minority. Now, at the beginning of the 21st century, California is becoming a "majority minority" state; that is, no ethnic group constitutes a majority of the population. And by 2020 the white population will be 30%, and the sum of all so-called "minority populations" will be 70% (the black population will be 5%, the Hispanic 48% and the Asian/Pacific Islander population 15%).

The question facing policy makers, researchers, citizens now is: How do we forge a Civil Society in the face of ethnic, cultural, and socio-economic diversity? That is a question for public debate to be sure; but more importantly, we think that diversity is a *research* question that our University, because it is a public university, has the obligation to confront seriously.

Just as the University of California has met its Land Grant social and eco-

nomic obligations with deep penetrating research, teaching, and service initiatives in agriculture, and then industry, the San Diego campus has engaged with the public and private sectors to develop educational model schools serving underrepresented minority students. CREATE researchers conduct basic and design research at the Preuss School and other public schools and make the lessons we learn about how to build a college-going culture available to educators and policy makers in the educational field.

Studying Organizational Learning by Design Research
In the act of building, maintaining, and studying the formation and on-going development of the Preuss School, and the adaptation of some of its basic principles by GCMS and other public schools, we are self-consciously engaged in a form of intervention research sometimes called "design research" (Brown et al., 1999). In our formulation of design research, researchers and practitioners collaborate to design research questions, gather and analyze data, and determine their utility for improving practice "on the ground." In especially robust forms of design research, researchers and practitioners collaborate on making findings and information about the conduct of the research and its translation into practice public.

Because we intervene in the activity by participating in its design and the design of the research about that activity, our actions partially constitute them. The special nature of design research makes explicit the ethical issues that are embedded (often implicitly) in the conduct of other styles or forms of research. A carefully documented ethnographic study of any organization, but especially one self-consciously trying to engage in change, will inevitably expose tensions, contradictions, gaps between intentions and actions.

We have found in our previous design research (Mehan et al 1996; Hubbard et al 2005) that participants naturally enough, want to emphasize the positive aspects of organizational change and learning, while ethnographically informed researchers are more likely to want to "tell it like it is." This difference engenders tensions over which aspects of events are to be made public and reaffirms that status differences between researchers and practitioners need to be negotiated constantly in design research. At a minimum, the reflexive relationship between researchers and participants needs to be made an explicit part of the analysis (Cicourel 1964). This injunction means attending not only to theory, data gathering and analysis, but the relation between researcher and practitioner as well. Research of the sort discussed here can not proceed without participants' support, trust and active engagement.

Educational Field Stations and Change Laboratories
Before proceeding with the details of this case study in organizational learning, it is helpful to compare CREATE, positioned as an educational field station, to Engeström's (2005) "Change Laboratories" because they are the most highly developed similar undertaking. As I understand it, Change Laboratories

are *temporary* activity systems that are set up within existing organizations such as banks, factories, schools, hospitals whereas we conceive of CREATE as an educational field station as a more *permanent* system available for continual consultation. Further, the purpose of "Change Laboratories" is to position the intervention as a tool chosen by the people working within a given organization to help solve some perceived problems in the ongoing course of work (Cole & Engeström 2007). By contrast, CREATE provides a range of resources, including evidence-based advice, tangible and material resources such as university students who serve as tutors and teacher professional development programs in science, literacy, and mathematics. In other words, a particular instantiation of Engeström's change laboratory serves as a mediating system *within* a social organization whereas CREATE serves as a mediating system *between* organizations (compare Figure 1 above with Figure 2 below borrowed from Cole & Engeström 2007).
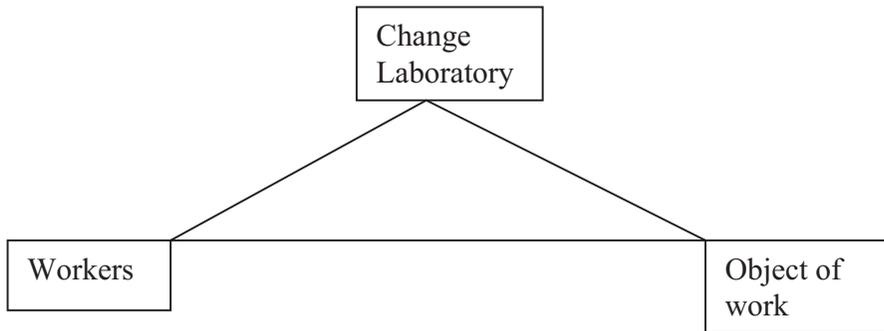

FIGURE 2   A Schematic Representation of a Change Laboratory

Another difference concerns the types of interactions between participants and researchers. Whereas the Change Laboratory is described as a meeting space in which practitioners and researchers engage in focused conversations to envision how the past and present circumstances might be organized to differ in intended ways in the future (Cole & Engeström 2007), CREATE's interactions span many types. Some are focused meetings, to be sure, as when the GCMS "Work Team" composed of parents, leaders of recognized community groups such as the Urban League and Chicano Federation, local churches, teachers, and CREATE met twice a week for 4 month to discuss their newly envisioned school's academic plan, the school day, expectations for teachers, how to establish a safe climate etc. But others have been more ephemeral, as when members of the GCMS leadership team visited Preuss School classrooms for a few hours, or talked one-on-one with CREATE-sponsored potential providers of teacher professional development activities.

There are similarities between the two mediating systems to be sure. Both focus on adult work and adult learning. Ultimately, by enabling adult workers to pick up and use tools to become agents of change within their own work

places, the goal of both types of organizations is to render themselves obsolete. As practitioners call upon their university colleagues less and less, they become more and more autonomous.

The designers of educational field stations and change laboratories both realize that the process of change is not smooth and seamless. While it is frought with contradictions, repetitions, backwards-steps, resistance, and conflicts through and through, the process embodies the collective actions of the participants involved (Cole & Engeström 2007)., While recognizing the challenges associated with describing and evaluating the dynamic and always-changing dimensions of activities, the researchers associated with both field stations and change laboratories take the issue of validating claims with evidence seriously.

Current social science norms demand unambiguous quantifiable descriptions such as those provided by standardized tests and laboratory experimental procedures. But the complex nature of participation and the ever-changing nature of adaptation and presence of internally- and externally-generated constraints in naturally-occuring organizations seeking to learn new practices and procedures defy such standardized assessments. Eschewing the one-dimensionality of standardized tests, outcomes are measured in a variety of ways, over and above (in the case of schools), traditional measures of students' performance.[3] In addition to working on ways to expand ways of measuring students' growth, development, and change, practitioners are interested in actual changes in work practices that signal organizational learning. In the case of GCMS, these changes include the academic plan, methods of engaging students, effective ways to improve teaching practice, and ways to make the school safe and inviting. Tracing the ideas developed in one context and their adaptation in another as a way to measure organizational learning is the topic of the remainder of this paper.

The Preuss School: A Remedy and a Model for Diversity and Access to Higher Education

The Preuss School is a single-track, college-preparatory public charter school on the campus of UCSD. It was established for the express purpose of preparing students from low-income backgrounds for college and to serve as a model for public school improvement. The school serves students from low-income backgrounds whose parents or guardians have not graduated from a 4-year college or university. The faculty and staff select through a lottery low-income sixth grade students with high potential but under-developed skills. "Low income" is defined as a family income that is no more than twice the federal level for free and reduced lunch. In addition, neither parent nor guardian can be a graduate of a 4-year college or university. In the 2003/2004 school year, 58.1% of the student population was Latino, 13.3% African American, 20% Asian, 6% White, 2.2% Filipino and 0.4% is Pacific Islander (McClure et al 2006: 7).

The principles of the Preuss School are derived from current thinking about

cognitive development and the social organization of schooling. Research on de-tracking and cognitive development suggests all normally functioning humans have the capacity to complete a rigorous course of study in high school that prepares them for college and the world of work if that course of study is accompanied by a system of social and academic supports (Cicourel & Mehan, 1983; LCHC, 1983; Bruner, 1986; Meier, 1995; Mehan et al 1996; Oakes 2003).

Creating a College-Going Culture at the Preuss School

Recent research (Oakes 2003) suggests that a college-going school culture is enhanced by safe and adequate school facilities, rigorous academic curriculum, qualified teachers, intensive academic and social supports, opportunities for students to develop a multi-cultural college-going identity, and strong family- neighborhood-school connections. Although Oakes' (2003) model was not explicitly used to build the academic plan of the Preuss School, it serves heuristically to organize a presentation of the school's structure and culture.

A College-going School Culture
The educators at the Preuss School seek to establish a "college-going school culture"—a "conditio[n] that students in educationally disadvantaged communities require for learning and successful college preparation" (Oakes 2003: 2). All the other "critical conditions" for equity and excellence enacted at Preuss flow from this primary one. A college-going culture develops when "teachers, administrators, and students expect students to have all the experiences they need for high achievement and college preparation . . . . Students believe that college is for *them* and is not reserved for the exceptional few who triumph over adversity to rise above all others" (Oakes 2003). Elements of a college-going culture include a shared purpose shown through rituals, traditions, values, symbols, artifacts and relationships that characterize a school's personality. A school culture is important because it "shapes the way students, teachers, and administrators think feel and act" (Peterson & Deal, 2002: 9).

Some of the symbols that focus students on college-going are the school's dress code, the location of the school, and the daily presence of UCSD students as tutors. Preuss students wear uniforms to school, which are intended to symbolize explicitly their participation in a college preparatory school. The presence of the school on the university's campus is intended to orient students to many dimensions of college life. Preuss students take courses at the university and serve as interns in academic departments on campus which gives them access to professors and students, thereby increasing their knowledge of the college-going experience and connecting them to valuable social networks.

UCSD students serve as tutors at the Preuss School. In addition to assisting Preuss students with their academic work—which is their explicit purpose—they also serve as role models for the students they tutor. Preuss courses are

taught in a block schedule, which means that students rotate through their eight classes on alternate days, mimicking the college MWF and TTH class schedules.

Counselors and teachers often encourage students to explore different types of colleges and learn about requirements, costs, and potential sources of support. To this end, they tour the UCSD campus and interact with college tutors in their classrooms and after school. The college application process, including writing college essays, becomes a regular part of the students' course of study. The school requires all students to apply to at least one University of California campus, one California State University campus, and one private college or university.

Safe and Adequate School Facilities
The Preuss School is located on the UCSD campus on a mesa above the village of La Jolla, one of the most affluent neighborhoods in Southern California. Built in 1999, the school has up-to-date science, computer, music, and art facilities for 750+ middle school and high school students. Classrooms, built to accommodate 25 students each, have specially designed spaces for one-to-one and group tutoring.

The school's physical and cultural distance from the neighborhoods of the students who attend the school cuts two ways. On the one hand, the location of the school a considerable distance from the low-income neighborhoods where the students live, provides a safe environment for learning. Its location on a college campus provides a symbolic connection to the students' intended future as college students. On the other hand, that very distance causes both physical and cultural stress. The students must commute—often by bus and trolley—45-60 minutes to and from their homes to the school, a condition that induces fatigue and separation from neighborhood friends—and sometimes, even family members (Khalil et al 2006).

Rigorous Academic Curriculum
Research shows that students enrolled in higher-level courses perform better than those in lower-level courses. Haycock (1997) reports that students who take fewer than 4 vocational education credits in high school score on average of 299 on the National Assessment of Educational Progress (NAEP) reading tests, whereas students who take 8 or more vocational credits score an average of 269 on those tests. On the other hand, white, black, and Latino students who take precalculus or calculus courses score on the average of 40 points higher on NAEP mathematics tests than students who take only pre-algebra or general math courses.

Cognizant of data such as this, Preuss students are only enrolled in college-prep classes. The school's curriculum fulfills or exceeds the University of California and California State University entry requirements, operationalized as the "UC/CSU A-G' course requirements. Courses at Preuss are taught on a

block schedule that resembles college; they include: 4 years of English; 4 years of math; 4 years of science, including 3 lab sciences; 4 years of a foreign language; and 1 year of a visual and performing art. The college-prep curriculum symbolizes the high expectations that the school has for each student, which in turn is intended to emphasize the college-going culture of learning being instantiated at the school.

The curriculum and pedagogy of the Preuss School is based on a belief in the value of a traditional liberal arts education that can be traced back to Dewey (1900, 1902 [1956]). The educators at the school want to have every graduating student to be capable of written and spoken expression (in both English and a foreign language), mathematical reasoning, understanding scientific procedures and results, and an appreciation of the diverse cultures that make up western and non-western civilizations. The fine and performing arts are not construed as *electives* but as well considered courses in the intellectual development of students. The senior year of the school is integrated with UCSD; the school wants seniors to take at least one UCSD course during their final year.

Designed to prepare students for the types of evaluations they will encounter in college, the evaluation practices adopted by the Preuss School can also be traced through the Coalition of Essential Schools (Sizer, 1984; 1992) to Dewey (1900, 1902 [1956]). In addition to taking the required regimen of State-mandated standardized tests and UC/CSU mandated college entrance exams, Preuss students are expected to present an exhibition of their work annually. This exhibition takes the form of a written and oral presentation to a panel of judges—ideally composed of a Preuss faculty member, a UCSD faculty member, and a parent or community member. A portfolio of measures—test scores, students' course work, grades, exhibitions–is intended to give a more comprehensive view of students' academic progress than high stakes tests alone afford.

Intensive Academic and Social Supports

Preuss students are not typical of the private or affluent public school students who routinely take college-prep courses and then apply to college, however. Some of the students speak English as a second language, some have not been successful in elementary or middle school and none of the students' parents has graduated from college or in some cases even high school.

Recognizing that the students who enroll at Preuss are differentially prepared, the educators at the school have instituted a variety of academic and social supports or "scaffolds," to assist students meet the challenges of the rigorous curriculum required for entering 4-year colleges and universities. Most notably, the school extends its year by 18 days, which gives students more opportunities to meet the academic demands of the school. UCSD students serve as tutors in class and after school. Students still in need of additional help are invited to participate in additional tutoring sessions during "Saturday

Academies."

In this way, the Preuss School has reversed the conventional time-curriculum relationship. In the traditional arrangement, students are educated for the same length of time, but the curriculum to which they are exposed varies. This practice leads to tracking (Oakes 1985). By contrast, it can be said the school has been "detracked" (Alvarez & Mehan 2006) by establishing high instructional standards and presenting rigorous curriculum to all students, while at the same time, varying the academic and social supports needed to enable all students to meet high academic standards. The relationship between academic performance and the enactment of needed social supports is displayed in Figure 3. The greater the students' academic performance, the fewer scaffolds are needed; likewise, the greater the students' academic needs, the more academic and social supports are activated.
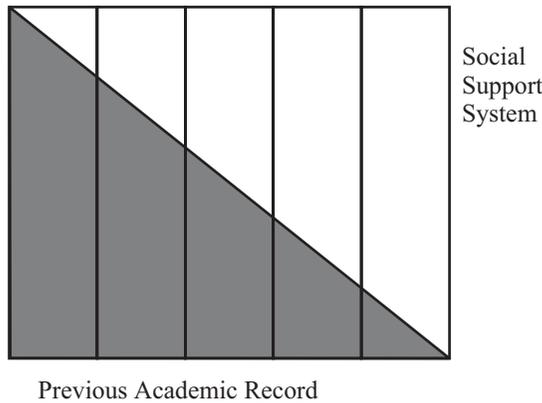

FIGURE 3   Dynamic Support of Academic Development

Students have an advisory teacher who serves as advocate and counselor for the same group of students from grades 6-12. Modeled after the successful AVID program (Mehan et al., 1996), the advisory class is a regular feature in the student's schedule, thereby emphasizing its importance. This class enables students and teachers to develop trusting relationships (Noddings, 1994) and to ensure that student achievement is monitored closely (Meier, 1995; Sizer, 2004). In order to ensure that the advisory teacher has adequate time to do this "advisory work," the school provides teachers with 6 1/2 release days per year. A substitute teacher, trained on-site, rotates through the classes and provides quality instruction. During this time the advisory teachers observe their students in classes, communicate with parents, or conduct personal conferences.

Research on the college preparation practices of well-to-do students and elite schools (Cookson & Percell, 1985; McDonough, 1997) shows that parents and counselors invest a considerable energy in developing students' portfolios

and connecting them to college admissions officers. Because the parents of Preuss School students have not graduated from college, they often lack the cultural and social capital needed to make these connections. The school's counselor has assumed these responsibilities on behalf of the school's students. She ensures that they take requisite admissions tests, secure fee waivers, obtain letters of recommendation, and apply to colleges—at least one CSU, one UC, and one private college or university.

Quality Teachers
Current federal and state policy demands that schools have "qualified teachers." Unfortunately, the field does not have a commonly agreed upon definition of quality. Instead, 'quality' is measured technically, in terms of degrees earned, credentials held, and whether courses are taught by teachers with degrees or credentials. For example, to comply with federal law while at the same time supplying enough teachers for the state's public schools, California now defines "practicing teachers who have demonstrated knowledge of subject matter and who have either a credential or a plan for getting one as 'highly qualified,' regardless of their actual capacity to teach" (Esch et al, 2005: 3).

In an effort to increase the faculty's teaching expertise in ways that go beyond tabulating degrees, credentials, and years of experience, teachers engage in professional development activities at the school site during the school day. Once a week, school starts late; this time is set aside for teacher professional development. Teachers meet in grade level or department teams to plan collaboratively, examine students' work, and engage in "lesson study" (Lewis 2002; Alvarez & Mehan 2004).

Opportunities to Develop a Multi-Cultural College-Going School Identity
When students see the acquisition of skills in the academic community and majority language and culture in an additive rather than a subtractive fashion, then it can be said that students develop a multi-cultural college going identity (Oakes 2003; cf. Gibson, 1987:189; Valenzuela, 1999). Students interviewed by Khalil et al (2006) described their education at Preuss as an additive not a subtractive process: "*Aunque la mona se vista de seda, mona se queda*"[4], was the response Khalil et al (2006) received from one student when asked if she felt comfortable expressing her cultural identity on campus. All students who this research team interviewed said they did not feel they had to forfeit their cultural identities in order to form their academic identities. Instead students felt that their academic identity complimented their cultural identity.

Furthermore, Preuss students did not see the adoption of an academic identity as a culture stripping in which they were trying to "act white" while sacrificing their home-based cultural identity. Instead, they saw achieving in the academic setting as a normal progression. In the final analysis, students realized they were participating in two distinct worlds—one at home and the other at school. But on campus they felt as though both identities could live side by

side.

In short, students developed "dual identities"—academic identities for school and neighborhood identities for home. The development and maintenance of dual identities was facilitated by the students themselves—in large part because of the numerical density of "minority" students on campus.

Family-Neighborhood-School Connections

Effective schools do not exist in isolation. They connect to neighborhood businesses, non-profit organizations such as YMCAs, churches, and Boys and Girls clubs. They value parents' strengths as a part of the education of students. Educators and community groups work together to ensure that families have access to knowledge about college going and the political strategies to act on that knowledge.

The geographic (and cultural) distance between students' homes and the Preuss School places a burden on parents as well as students. It is often difficult for parents from low-income neighborhoods to volunteer in classrooms, attend governance meetings, or supervise clubs. Because the Preuss School is so far away from students' neighborhoods, it is especially difficult for parents who have children attending Preuss to actively participate in school events. Nevertheless, parents are expected to participate in school activities, notably by volunteering to serve on governance committees, energizing phone banks, and supervising student clubs.

Perhaps the most intriguing way the school connects parents to the school is by appropriating their "funds of knowledge" (González, Moll, & Amanti, 2004; Roseberry, Warren, & Conant, 1992; Lee, 1995, 2000, 2001). Parents who are fluent speakers of languages other than English have been invited to converse with Preuss students in advanced language classes. In that way, students gain exposure to naturally occurring spoken Spanish Vietnamese, etc., and parents connect in meaningful ways to the life of the school. Appropriating community funds of knowledge for instructional purposes in this way has the additional benefit of demonstrating that the households and neighborhoods of even the poorest families are powerful sources of knowledge.

In addition, Doris Alvarez, school principal, has conducted parent education courses that earn community college credit in which parents are exposed to the expectations of the school, their students' course material, college requirements, costs, and sources of financial aid. The high school counselor and advisory teachers also conduct regular application and financial aid workshops for students and their parents, thereby attempting to reduce the mystery of the college-going process.

The Preuss School: A Remedy and a Model

The Preuss School UCSD is both a remedy and a model. It is a *remedy* in that the school is successful in preparing students from under represented back-

grounds for college: 80% of students in the first graduating class (2004) and 87% of the class of 2005 and 78% of the class of 2006 have enrolled in colleges such as Berkeley, UCLA, UCSD, Harvard, MIT, Dartmouth, and Claremont. The distribution of students in UC, CSU, private and community colleges is shown in Table 1.

TABLE 1   Preuss School Students' College Enrollment, 2004, 2005, 2006

	2004		2005		2006	
	N	%	N	%	N	%
UC	25	44%	33	44%	39	45%
CSU	9	16%	20	27%	20	23%
Private	10	20%	12	16%	9	10%
CCC [5]	11	20%	9	13%	19	22%
Totals	55	100%	75	100%	87	100%

For the first time in 2004-05, there were enough students who applied but were not accepted to the school through the lottery to construct a "comparison" group. CREATE researchers interviewed students in both groups. Whereas 90% of the students interviewed graduating from Preuss in the class of 2004 who had been at the school since 6th grade were attending 4-year colleges in Fall 2005, CREATE researchers estimate that between 42.1% and 78.9% of students in the "comparison group" were accepted in 4-year colleges in Fall 2005 [6] (McClure et al., 2006). See Figure 4.
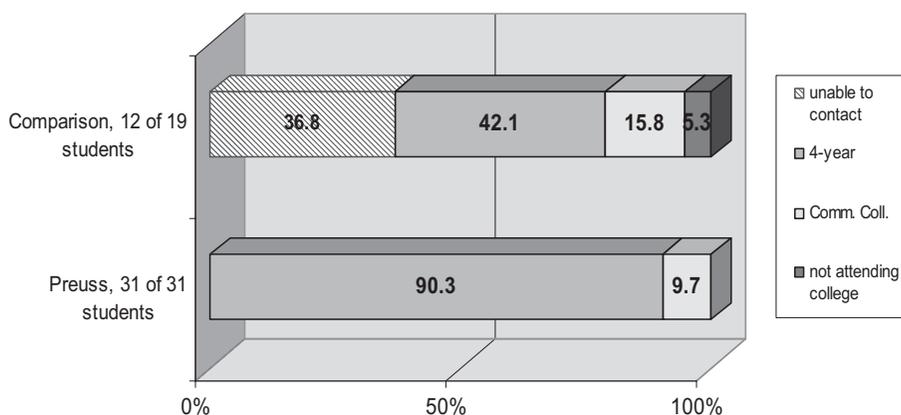

FIGURE 4   Percent of Preuss and Comparison Graduates in Fall 2005

In sum, we have an "existence proof" that underrepresented minority youth can achieve college eligibility when the critical conditions for their success–safe and adequate school facilities, rigorous academic curriculum, qualified

teachers, intensive academic and social supports, opportunities for students to develop a multi-cultural college-going identity, and strong family- neighborhood-school connections—are put in place.

Extending the Model to Neighborhood Schools Mediated by CREATE

The Preuss School is also a *model* in that the principles developed at the school are available to be adapted by other schools. Indeed, the success of the Preuss School recommends that it be seriously considered as a model for institutions of higher education to collaborate with their K-12 colleagues in order to strengthen the academic programs of elementary and secondary schools and to address the overwhelming lack of diversity on college and university campuses. The most notable example of adaptation of the principles developed at Preuss School is occurring at Gompers Charter Middle School in Southeast San Diego.

The original Gompers Secondary School had been an urban 7-12 school in Southeast San Diego for over fifty years in a community with a high crime rate and a lengthy history of gang-related violence. This school, unable to meet its *No Child Left Behind* (NCLB) performance targets for six consecutive years, was required to restructure. After months of deliberation, a working group of parents, teachers, administrators and community leaders (notably from the San Diego Chicano Federation and the San Diego Urban League) recommended that the school be reconstituted as a charter school in partnership with UCSD CREATE.

Indeed, UCSD's involvement was provoked by aroused parents who pointed out that there were seventy-seven families living in Southeast San Diego with at least one child attending Gompers and at least one child attending Preuss School UCSD. Their awareness of the difference a school could make in the lives of their children helped to create an empowered and informed community. Charter schools remain a controversial issue, and it is not our view that such a device is the only way to improve schools. However, 75% of Gompers' parents and 58% of the school's full-time, unionized teachers voted for the proposal to establish Gompers Charter Middle School. On March 1, 2005, the SDCS Board of Education unanimously approved the GCMS charter. The school, which opened its doors to students on September 6, 2005, enrolls 841 students (35% of which are African American, 10% are Asian, 53% are Latino, and 2% are white), and employs 45 teachers (http://www.gomperscharter. org").

Differences Between Preuss and GCMS that Influence Adaptation

Before describing the reculturing and restructuring efforts underway at GCMS, I want to point out the differences between Preuss and GCMS that influence the adaptation process "on the ground." Preuss and GCMS are both charter schools, have similar student populations (low income students of color), are

implementing a "detracking" academic plan (rigorous college-prep courses augmented by academic and social supports in the form of a longer school day, longer school year, tutorial support, etc.), emphasize "job-embedded" professional development and extensive community and family engagement. However, there are considerable differences between the two schools.

The Preuss School is on the UCSD campus and educates 750-800 students in grades 6-12, who are enrolled through a lottery process, while GCMS is a neighborhood school in Southeast San Diego and educates a considerably larger student population—850 students in fewer grades—6-8. The Preuss School was a "start-up" charter school, which meant that it was able to begin operations slowly, with a small student population (150 students the first year) and add a new grade level each year until it reached maturity when it had its first class graduate in 2004. By contrast, GCMS is a "conversion charter school," which means that the school closed its doors as "Gompers Middle School" in June 2005 and opened them as GCMS in September 2005. Three months is not very long to design a new academic plan, hire new staff, acquire books, etc.

Furthermore, the students in the neighborhood who attended the "old" Gompers are eligible to attend GCMS. Students who walk into GCMS from the neighborhood are not always aware of the unique educational expectations of the school in the same way as parents who must apply to Preuss in order to enroll their children there.

Sources of funding also distinguish GCMS and Preuss. Both schools start with "average daily attendance" (ADA) allowances from the California State government. But Preuss benefits from an additional annual allocation of $1 million from the University of California that helps defray the cost of bus transportation and the additional academic and social supports. By contrast, GCMS must raise the additional funds required for paying faculty and staff for the longer school day, culture camp, and Saturday Academies from private sources.

Mediation is at the heart of this experiment in organizational learning. And "artifacts," in turn, are often seen to be at the heart of mediation. In our participation in and study of the adaptation of design principles developed at the Preuss School by the educators at GCMS, we find it productive to think of artifacts in terms of goal directed human actions (Cole, 1996: 118-122). In this conceptualization of mediation, material objects such as axes, clubs, hammers, and bowls, and symbol systems such as language, writing instruments, and telecommunication instruments are mediated actions. For our analysis, the important part is how mediated actions are put to use in actual practice "on the ground."

Faculty and staff associated with CREATE have deployed a variety of mediated actions in this Preuss-to-GCMS adaptive process, including serving as guides and facilitators, participating as advocates in political situations, and providing material and intellectual resources.

CREATE Faculty Serve as Guides and Facilitators

The faculty and staff associated with CREATE serve as guides and facilitators for GCMS educators. CREATE faculty members give advice when asked about their knowledge and experience with research that could inform practice. Examples of topics discussed have included tracking, detracking, single-gender classrooms, the relationship between the need to instill norms for students' behavior and accelerating instruction, and how to embed teacher professional development within everyday teaching practice. CREATE faculty have organized visits by GCMS educators, students and parents to the Preuss school site, which include briefings by the principal, visits to classrooms, conversations with faculty and students.

CREATE Faculty Serve as Political Advocates

CREATE faculty have been active in political processes. It seems that educational innovations–especially those that challenge deeply held beliefs about the ability of racial and ethnic groups to learn, how classrooms should be organized for instruction, the costs of education, and how teachers should be organized for their professional development—invoke questions and even hostile resistance from members of the current establishment. As a result, CREATE faculty have participated in a variety of political conversations (some of which are better characterized as arguments!).

The political controversies associated with the formation of CREATE and the Preuss School have been well documented elsewhere (Rosen & Mehan 2004), so I will not belabor those points here. Suffice it to say, the establishment of CREATE and Preuss was not a smooth process. The school opened Fall 1999 on the UCSD campus after a contentious public debate, in which not only the concept of the charter school, but also tacit definitions of community, equality, and the university itself became the object of contest and struggle. The initial 1997 proposal was rejected, when it failed to garner the full support of either the faculty or its new chancellor. Fueled by a public outcry, negative press (notably from the *San Diego Union Tribune*, the *Los Angeles Times*, and *Sacramento Bee*), and pressure from the UC Regents, a more comprehensive plan, which created CREATE and a model school was later approved by the Chancellor and the faculty (Rosen & Mehan 2003).

The establishment of Gompers Charter Middle School was equally contentious. It involved convincing parents, teachers, the school board, and community groups that establishing a college-going culture of learning in an economically depressed neighborhood composed primarily of low-income Latino and African American families was a good idea. A coalition of parents, leaders of community groups such as the Urban League, Parent Institute for Quality Education, local churches, and UCSD faculty, finally succeeded in convincing the school board to approve a partnership between GCMS, the surrounding community, and UCSD.

Even though GCMS is open and operating, the contentious political process

has not fully abated. The San Diego Unified School District (which holds the GCMS charter) has taken a series of actions that imperil the very existence of GCMS and distracts the educators' attention from improving instructions. These actions include seeking to impose new rental costs for facilities, expanding the grade levels of local elementary schools to overlap with those of GCMS, and seeking to reduce the contract for teachers on loan from the district to the school.

CREATE Provides Material and Intellectual Resources
Now that the doors to GCMS have opened, UCSD through CREATE brings material and intellectual resources to that school site—many of which are derived from our experience at the Preuss School. These resources include UCSD students who serve as tutors before school, during classes, and after school; a bus that deposits tutors at GCMS and enables parents to visit UCSD; professional development experts in Math, Science, Reading, Writing, ESL, History/Social Studies, especially for students learning English as a second language; researchers who compile and analyze information on students' performance and the development of the school; teaching interns in math, science and English/ESL; parent education opportunities to inform parents about higher educational options for their students after high school, concrete advice on how to achieve higher educational goals and obtain funding for college; faculty who serve on the Board of Directors.

For convenience, I will return to those conditions (Oakes 2003) says contributes to a college-going school culture and describe those that have been adapted by GCMS from Preuss. You will note that features that contribute to a reculturing and restructuring the school are described here in more detail because they are more developed, while features dealing with school facilities and students' identities are not, because they are less well developed at this point.

A College-going School Culture and a Multi-cultural College Going Identity
Like the educators at Preuss, the educators at GCMS seek to establish a "college-going school culture" and to instill a multi-cultural college going identity in students without asking them to sacrifice their neighborhood customs and friends. Notably, they seek to do so by developing a shared purpose through rituals, traditions, values, symbols, artifacts and relationships that characterize the school's personality. School uniforms represent the most visible symbol of the nascent college-going culture at GCMS. Although students are sometimes reluctant to wear their uniforms in the neighborhood—for fear of reprisal from local gang members—students are beginning to learn that the uniforms mark the school as a special place for learning.

College pennants, and motivational signs exhorting students to do well academically and apply to college adorn classroom and hallway walls. The school motto, "REACH" which stands for "Respect, Effort, Achievement, Citizenship, and Hard work," appears ubiquitously. Students are expected to be able to re-

cite it and the school mission ("the mission of Gompers Charter Middle School, in partnership with University of California, San Diego and our community, is to accelerate academic achievement for ALL students through a college preparatory culture and curriculum") when asked by school personnel.

GCMS has instituted an especially innovative practice to inculcate a college-going culture not directly derived from Preuss. GCMS students and teachers are organized into "learning teams," which consist of an interdisciplinary group of teachers who work with a specific group of students. The teacher team stays with the same group of students throughout the year to encourage the development of strong, supportive relationships between the adults and the students. Team meetings of students in each grade level with their teachers are held each morning before school. To reinforce the college-going dimension of the culture of learning at GCMS, each team is named after a campus of the University of California—UCLA, Berkeley, UCSD, etc. This daily ritual, which includes songs, cheers, and personal greetings, is intended to personalize the relations between teachers and students and remind the students that GCMS is all about preparing them for college.

GCMS has adopted the practice of using UCSD students as tutors. In addition to assisting GCMS students with their academic work—which is their explicit purpose—they also serve as role models for the students they tutor. UCSD students often have informal conversations with GCMS students that introduce them to the idea of preparing for college early and enables younger students to learn some aspects of the "hidden curriculum" from older students.

Like their counterparts at Preuss, GCMS students participate in a 25-minute advisory class four days per week; these advisory classes focus on organizational and study skills, career exploration and college preparation. Students explore different types of colleges and learn about requirements, costs, and potential sources of support. To this end, they tour the UCSD and SDSU campuses.

Rigorous Academic Curriculum
Like Preuss, GCMS students are only enrolled in college-prep classes. The college-prep curriculum symbolizes the high expectations that the school has for each student, which in turn is intended to emphasize the college-going culture of learning being instantiated at the school.

The school day is extended to 8 hours and 10 minutes four days a week. The academic plan GCMS leaders saw at Preuss has been modified considerably. Unlike Preuss, which has a block schedule with periods of equal length, each GCMS school day is organized into 7 periods of variable length, starting with the 20-minute learning team meeting I described above. All students receive 90 minutes of instruction in English Language Arts (literacy, literature, oral development, and writing) and math each morning. After lunch, students participate in 90-minute blocks of instruction in science, history, foreign language, physical education and elective courses on alternate days. The school day clos-

es with an "encore" period that consists of electives, enrichment activities, sports, clubs and community activities.

Classes are team-taught by two teachers. In the morning, one member of the team is the English Language Arts or math teacher; the other is a history, art, music, PE, or science teacher who teaches classes in the afternoon. In afternoon classes, the teaching responsibility is reversed; English and Math teachers assist the "content" area instructors. This arrangement places two qualified teachers in every classroom, thereby reducing the teacher-student ratio. When UCSD is able to provide tutors for these classes, it means that the teacher-student ratio is reduced further.

Intensive Academic and Social Supports

Recognizing that the students who enroll at GCMS are not all adequately prepared for the rigors of a college prep curriculum, the educators at the school have instituted a variety of academic and social supports or "scaffolds," similar in many respects to those installed at Preuss, in order to accelerate students' learning. Whereas the Preuss School extends its year by 18 days and its school day by 60 minutes, GCMS decided to only extend the school day, but not the school year. They instituted this practice because the school leaders worried that students would not attend school if it started earlier than the traditional day-after-Labor Day start-date.

The *idea* of providing additional scaffolds is borrowed from Preuss, but the *actualization* of this idea into practice is different. Students who are not meeting expectations in math and English are placed into enrichment activities as needed in the "encore" period. On Wednesdays, school starts 90 minutes later. Students who are in need of additional support are invited to special tutoring sessions during this period and during "Saturday Academies." These extra sessions are intended to enable struggling students to have additional opportunities to accelerate their learning without decreasing academic standards.

Quality Teachers

The lack of quality teachers at the "old" Gompers was one of the main reasons that parents mobilized to change the school. As a charter school, GCMS educators, like their counterparts at Preuss, have gained control over personnel issues. They are now able to hire, promote, retain, and dismiss teachers at the school site, which exempts them from district personnel policies that award teaching positions on the basis of seniority. GCMS leaders believe that they are now in a better position to attract teachers who want to be at this school, are committed to the education of GCMS students, and are willing to contribute the extra time and energy it takes to improve the learning of under performing students.

Faced with an almost completely new teaching staff and committed to instilling a common culture among that staff, the GCMS leadership instituted a new practice, which they called "culture camp." Culture camp was held in the weeks

before school opened in the Fall 2005 and Fall 2006. Its purpose was to develop a common language, common expectations, common ways of teachers and support staff (including custodians and safety officers) to interact with students. If all adults on the school site hold the same high expectations for students, enforce the same rules and regulations, treat indiscretions in the same manner, GCMS leaders believe, then stability and predictability will be engendered for students, thereby contributing to their academic development.

All GCMS teachers now have similar ways of organizing their rooms, the school day, and lessons; assigning and receiving homework; treating absences, tardies, and movements between classes; and asking students to engage in an action familiar to teachers in many schools in Japan: rising to greet visitors.

Educators at GCMS, like educators at Preuss, recognize that the most effective form of teacher professional development occurs at the job site and is embedded in the work (Darling-Hammond, 1997). Therefore, GCMS teachers engage in professional development activities at the school site during the school day. School starts late once a week for GCMS and Preuss teachers—Friday at Preuss, Wednesday at GCMS.[7] At both sites, this time is set aside for teacher professional development. Teachers meet in grade level or department teams to plan collaboratively, examine students' work, and engage in a practice familiar to many Japanese educators: "lesson study" (Lewis 2002).

To further ensure a common culture of learning at GCMS, the school has secured a pool of substitute teachers who are on permanent call for work at GCMS. This substitute teacher pool has been trained in the instructional practices employed at GCMS so that when they take over a classroom a drop in instructional quality will be lessened. The availability of substitute teachers "on call" for GCMS also provides the school director with the flexibility he says he needs to provide professional development and revitalization opportunities for his teaching staff.

Family-Neighborhood-School Connections

The distance from home to school is presents the opposite problem for GCMS that it does for Preuss. Whereas Preuss students must be transported for 45-60 minutes to and from school, GCMS students walk to and from school. Whereas parents applying to have their children attend Preuss are, for the most part, aware of the college-prep orientation of the school, this is not the case with parents in the Gompers neighborhood. Many parents have expressed surprise when they have learned that GCMS is a college-oriented school; they often did not expect to have their students challenged by college-prep courses, wear uniforms, spend a longer school day, and attend school on Saturdays when they are not doing well.

As a result, GCMS has established a much more elaborate family-neighborhood-school connection than Preuss. They have created a number of standing committees composed of parents and members of the GCMS leadership team to involve parents more systematically in the growth and governance of the

school. These committees include a Reward/Celebration Committee to coordinate activities to honor teachers, students, and staff; a Fundraising Committee to coordinate school fundraising events, collect parent dues and to make recommendations to the Director and the Board about school needs and expenditure of funds; a Classroom Committee to assist teachers' instruction in classrooms; a Front Office Committee to assist front office staff on administrative matters, including memos to teachers, information to parents; a Campus Beautification Committee to ensure the campus is clean and inviting; an ASB Committee—to work closely with the student government advisor to help chaperone student activities and dances, help in the student store; a "Free time" Supervision Committee to assist the supervision of students before school, after-school, and during lunch-time activities; and a Uniform Committee to help defray the costs of uniforms and help the staff monitor students' appropriate dress.

Safe and Adequate School Facilities
Whereas the Preuss School is located in the relative security of a college campus in a well-to-do neighborhood, GCMS is located in a neighborhood characterized by high unemployment, gang violence, and few socio-economic possibilities. To counter these threatening conditions, the school leaders have taken a number of actions to make GCMS a safe haven in a hostile environment. Notably, all the buildings have been cleaned and repainted; the grass has been mowed, shrubs have been trimmed. New signs and banners announce the school mission and welcome parents. At the start of the school day, teachers greet students in their learning teams named after UC campuses at the front gate, now dubbed "gates of wisdom," with classical music and hot cocoa.

The police department is cooperating by intensifying patrols before and after school and warning known gang members to avoid the school and the paths students take to and from school. Despite this added security, GCMS students report being hassled on the way to and from school.

The school has also begun to make connections to neighborhood businesses, non-profit organizations such as YMCAs, churches, and Boys and Girls clubs. The idea here is to encourage community groups to work in concert with the school to make GCMS a safe end inviting educational environment and to ensure that families have access to knowledge about college going and the political strategies to act on that knowledge.

Summary and Conclusions
CREATE is trying to determine whether a research university can create a learning system in which an inner-city school can reach a level of achievement equivalent to a campus-based school as part of a larger enterprise to reconfigure relations between the K-12 educational sector and universities.

I am suggesting that the development of educational field stations associat-

ed with university campuses be considered as a model for confronting the under representation problem in higher education and for improving the quality of education in elementary and secondary schools. These university-affiliated educational field stations would serve as a mediator between well-established educational models and schools struggling to improve students' learning. The tools of design research would be applied to study the educational practices inherent in these models and the adaptation of the lessons learned by selected schools in areas with high concentration of underrepresented minority populations.

Adaptation not Replication

Any such collaboration between a university and K-12 schools requires organizational learning—defined as an activity actualized in patterns of institutionalized behavior. In this case study, we have looked for organizational learning in the intersection of encounters between three organizational units—UCSD CREATE, the Preuss School, and GCMS– rather than in any one organizational unit or department in isolation.

GCMS has adopted a number of practices from the Preuss School mediated by CREATE. This has not been a straight-forward, direct replication process, however; instead it has involved the adaptation of ideas to the constraints of a context composed of different social circumstances.

The dynamic manner in which the principles learned at the Preuss School is being adapted at GCMS challenges the conventional wisdom that school change requires replication. Replication is the reform strategy that commences with a "design team," situated at the top of a bureaucracy, that prepares plans for "implementers," the people down the causal chain, whose task is to put the plans into practice at the local school site. In the replication "grammar of implementation," the causal arrow of change travels in one direction–from active, thoughtful designers to passive, pragmatic implementers.

By contrast, the adaptation model of organizational change we have been describing here is mediated, and therefore, multidirectional. Because organizational learning is co-constructed, educators located in one part of the reform space act in such a way as to inform policy and influence practice in other parts. The adaptation model does not reduce educators to compliant actors, passively responding to directives mandated from higher levels of bureaucracies. Instead, they are empowered to make policy in their everyday actions. These actions may include modification or rejection. In each and every case, these actions shape the policy.

Developing a Hybrid Activity System

The process of adaptation underway at GCMS encourages a reexamination of some of the key assumptions of activity theory. One such assumption about mediation within CHAT is the idea of a "shared (or partially shared) object." Yamazumi (2006) proposes that hybrid activity systems develop when two (or

more) activity systems interact. If we equate the work of CREATE, the Preuss School and GCMS with interacting activity systems, then we have empirical evidence of the emergence of that hybridity.

Although distinctive in their organization and contribution to the success of the school, the features of Preuss are not replicated isomorphically at GCMS. They are being adapted to the demands and constraints of the local context. Or to phrase the issue in a different way: the features of the educational system emerging at GCMS are an amalgam of features drawn from Preuss as well as other sources, notably the California Charter School Association that gave GCMS leaders helpful advice about school governance, financing, and legal matters. In sum, the new, hybrid activity system at GCMS is emerging during the course of the collaboration with Preuss as mediated by CREATE. It is not necessarily isomorphic with the features of the interacting activity systems.

The notable features of the new hybrid activity system emerging at GCMS are summarized below.

A college-going culture of learning. GCMS adopted the idea of academically rigorous courses supported by extensive academic and social supports from Preuss, but has devised its own version of this model. Visits to the Amistad Academy and other charter schools reinforced school leader's thinking about the need to develop a common school culture among teachers and students. The importance of school uniforms as a tangible symbol of a college going culture was especially reinforced during these visits.

Notable among the scaffolds built at GCMS to support rigorous instruction is the use of UCSD students as tutors, and increased opportunities for students learning in the form of a longer school day (but not a longer school year). Expanded instructional time has been compressed into a longer day rather than a longer year because GCMS educators think that plan better suits the needs of their student body.

GCMS educators added their own original ideas about building a college-going school culture to those obtained from Preuss. Whereas Preuss employs a block schedule throughout the school day, the GCMS academic plan places math and English Language Arts instruction in the morning 5 days a week; other courses are presented on a block schedule in the afternoon. Encore, a combination of electives and extended tutorial time, is presented during last period of the day-rather than after school—so that students see their academic work as integral not an "add on." GCMS also established learning teams—smaller grade-level learning units to increase personalization, build rapport and trust between teachers and students—a feature which does not exist at Preuss.

Teacher Professional Development. Teacher professional development is embedded in school day, not in after school or weekend "drive by" workshops at both schools. This practice is accompanied by a later start of the school day at both schools. However, this "job embedded professional development" occurs on Wednesday morning at GCMS and Friday at Preuss. This modification

was instituted to divide the students' academic week more

GCMS added their own original idea about teacher professional develop-
ment. Teachers participate in a 2-week orientation session before the start of
the school year in order to develop a common language, common expecta-
tions, common ways of all GCMS personnel to interact with students. The ra-
tionale for the development of a common culture among GCMS educators is
to engender stability and predictability in students' lives and thereby contrib-
ute to their academic development

Notes

1. This paper was prepared for the 3RD International Symposium, "New Learning
Challenges," Kansai University, Osaka, Japan November 2006.
2. My thinking in this section has been strongly influenced by Mike Cole; I am pleased to
acknowledge his influence here.
3. This is the position advocated by the Civil Rights Project, the New York Performance
Standards Consortium, the Coalition for Authentic Reform in Massachusetts, the
American Evaluation Association, and the American Educational Research Association.
For example, the American Evaluation Association (2002: 1) said: "High-stakes testing
leads to under-serving or mis-serving all students, especially the most needy and vulner-
able, thereby violating the principle of "do no harm." AERA (2000: 1) based its position
on the 1999 *Standards for Educational and Psychological Testing*: "Decisions that affect indi-
vidual students' life chances or educational opportunities should not be made on the
basis of test scores alone."
4. "Even if you dress a doll in silk, she remains a doll."
5. Students attending California Community Colleges (CCC) were offered dual admission
or Guaranteed Transfer in which students enter the UC as juniors after completing 2
years of community college course work. All students from the classes of 2004 and 2005
enrolled in community colleges accepted these options, while 16% of the class of 2006
did and 6% did not accept these options.
6. CREATE researchers could report only a range among the comparison group because
not all 19 students were available for interview. Of the comparison group students who
agreed to be interviewed, only two-thirds, or 66.67%, reported that they would be at-
tending a 4-year college (for details see McClure et al, 2006). See full report at: http://
create.ucsd.edu/Research_Evaluation/PreussReportDecember2005.pdf
7. GCMS leaders chose Wednesday rather than Friday for the "short day" so that students
would get a break mid-week from the longer school day schedule. Here we have yet an-
other modification of a practice at GCMS that was initiated at Preuss.

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