The Serendipity of Connections and Their Consequences

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This essay is an account of how, throughout my 40-year career as an educational researcher and professor of Sociology and Education, mostly at the University of California, San Diego, I have tried to live my commitments to excellence and equity in practice to create a more just educational system. These values permeate my story, which is presented here in two parts. In the first part, broadly spanning 20 years, I focused on uncovering the roots of the seemingly inexorable social fact of educational inequality in US K-12 education, mainly through studying some of the policies and practices that produce those inequalities. My findings showed consistently that students of color from low-income backgrounds did not fare as well as their middle-income “majority.”

In the last 20 years, I have attempted to build educational environments that might produce more equitable possibilities for underprivileged young people based on the research that uncovered the stratifying practices that produced educational inequalities.

Many of the directions that my professional career took were not thoughtfully and carefully planned. My participation in various projects was not entirely free, totally independent, or completely rational. They were often not entirely of my own making. Instead, I often responded to opportunities presented to me. In fact, I think that the concept of serendipity accounts well for the relationships that shaped my career trajectory.

Part I: Uncovering the Social Facts that Constitute Educational Inequality

In The Rules for Sociological Method, Durkheim (1982) stated that social structures are immutable and independent of social action and constrain social action. Like-minded colleagues and I have asked how social structures became structured and thereby immutable and constraining of social action and how these structures stratify and thereby construct inequality in social interaction. If we could find this out, we reasoned, we would be better informed about how to disrupt and change the stratifying machinery in order to construct more equitable educational environments that would allow young people to lift the yoke of constraining social structures and contribute in meaningful ways to a more egalitarian society.

My analysis of stratifying practices in my early research, is informed by a constitutive theory of social action: the premise that human social activity, including public policy discourse, both expresses and constructs meanings that define the social world. This constitutive or constructivist perspective, formulated by the ethnomethodologists (Cicourel, 1973; Garfinkel, 1967, as well as Giddens, 1984), maintains that social actions simultaneously constitute social structures and are constrained or enabled by them. These constitutive social processes also often involve the “politics of representation” – competition between differently situated actors for the power to define the situation for others (Chang & Mehan, 1990; Holquist 1984; Mehan, 1997; Mehan, Nathanson & Skelly, 1990; Shapiro, 1988). At the same time, social actors also cooperate to construct meanings for the social world through bargains and compromises that integrate multiple interests to create diverse political coalitions in support of particular actions. In the process, the meanings ascribed to particular objects are modified and sometimes transformed.

**Constructing the Social Fact of Test Scores.** The very beginning of my sociological career was shaped by a fortuitous circumstance. I entered the Sociology program at UC Santa Barbara right after I returned from Vietnam in the Fall of 1967. On my first day, I conferred with Peter Hall, who was graduate advisor about my course of study (and with whom I collaborated extensively later). He recommended the department’s theory and method course. I balked, arguing I had taken a sequence of courses in survey methods in part of my MA program. Peter calmly rejoined, “We do things differently here,” and enrolled me in Aaron Cicourel’s course for first-year students and an advanced seminar in ethnomethodology taught by Don Zimmerman. A deep and influential friendship also emerged from Aaron’s seminars and conversations. Houston Wood and I collaborated on projects aimed to make ethnomethodology more accessible by a wider audience (e.g., Mehan & Wood, 1975). His wide-ranging thoughts and interests have challenged me ever since. Aaron later guided my dissertation research that dealt, in part, with the social construction of educational test results. We have been colleagues and friends ever since.

The manner in which educational tests are administered constitutes an occasion in which youngsters can be stratified in school. Ideally in a testing encounter, as soon as the student answers, the tester is supposed to score the result and go on to the next question. The format of a testing encounter should therefore approximate a question-answer/question-answer (Q-A/Q-A) sequence.

In my video-enhanced study of the administration of the WISC (Mehan, 1978), 68% of questions asked followed the Q-A/Q-A format. On the remaining 32% the tester deviated from this format. Instead of asking the next item immediately, the tester either repeated the question or prompted the students with cues: “Can you think of anything else you might do?” or “Can you think of other reasons?” Every time the tester cued the students in this way, they provided another answer to the item.

The tester’s practice of prompting after certain students’ initial replies had practical consequences for their test scores. Second answers received an extra point 50% of the time. By comparing the students’ raw scores before they received cues with their scores after they received cues, I found that a student’s score could increase as much as 27% as a result of the tester’s cueing. It is also notable that girls more than boys benefitted from this practice.
I found a similar pattern in the administration of the BCI, a test of basic language concepts given to primary grade students (Mehan, 1978). While a tester reads questions, students are shown a group of pictures and asked to touch the picture that best answers a question. There are a total of 42 questions on this test, 30 of which require students to touch one picture for a correct answer. The remaining 12 questions require the students to touch more than one picture.

When asked a question that requires a series of answers, the test-taker is supposed to touch all the correct pictures immediately. However, in the testing encounters I videotaped, the children conformed to this expectation only 66% of the time. In those instances in which the children did not immediately touch all the correct pictures, the tester provided ‘continuation cues’ to elicit additional answers. For example, one test picture showed a table, a boy, a man, and a dog. The accompanying question asked the respondent, “Find the ones that are not a bed.” When one student touched only the representation of the boy, the tester said, “That one,” and paused. The student then touched the picture of the table. When the tester again said, “That one,” and paused, the student touched the remaining pictures. The tester then said, “Good.” The child stopped touching pictures and received a full score.

Testers are like a puppet master in these sequences. Verbal cues like “That one” or “Is that the only one?” and nonverbal cues like pauses told the children to continue searching the page for more answers. They guided students’ hands across the page until all the correct pictures were touched. The children responded each time they were invited to continue answering, and they got 44% of their additional responses correct. Compliments like “Good” at the end of such a sequence instructed the students to stop answering, thus “cutting off” potentially incorrect answers. Again, more girls than boys benefitted from the tester’s “puppeteering practices.”

Testers’ scoring practices also influence students’ test results. Students are asked to decide which child in a group is the tallest on one BCI question. Because the children’s heads are obscured in the picture, the test taker is supposed to reply, “I don’t know,” or “I can’t tell.” However, many of the students examined selected one specific child in the picture as the tallest. When I asked the students after the test why they had chosen that boy they replied, “His feet are bigger.” By investigating the process of students’ reasoning and not simply its products, I found that they did understand the intent of the question – to discriminate and compare – but did not use the criteria of comparison presupposed by the test. The assumption underlying the test question was that height would be used as a standard, but the students I questioned were using shoe size as their standard.

Often wrong answers did not result from a lack of knowledge; rather, they resulted from a substantively different interpretation of testing materials. Students who answered test questions incorrectly were often performing the very cognitive operation being tested by the questions. Contrary to prevailing educational testing theory, which suggests that incorrect answers may result from a lack of knowledge, these investigations of children’s schemes of interpretation suggest that incorrect answers may result from a discrepancy between adult and student views of the world.

Treating test results as objective facts obscures the constitutive process by which students arrive at answers on written group tests. These investigations of item meaning point out the danger of making policy decisions about students on the basis of product measures that do not reveal the way in which these products are constructed. Once individual answers are tabulated into a test score, puppeteering practices are invisible. Completed test results, however, become an important data point in the construction of students’ pathway to college and careers.
Classroom Discourse and Everyday Discourse. A little bit of luck also contributed to my appointment as the founding Director of the Teacher Education Program at UC San Diego. Responding to extensive, and often raucous, student demands for more relevant courses of study, the administration initiated a teacher preparation program in 1972. Aaron Cicourel helped convince me to leave Indiana University to be the junior member of the inaugural education program faculty. As I drove from Bloomington to San Diego, I learned that the person appointed to be director changed his mind. The program leadership responsibility fell to me by default. I fully expected that a senior faculty member would soon become director. Instead, the administration asked me to stay in that position until 1999, when I was appointed as the first director of the Center for Research on Educational Equity, Access, and Teaching Excellence (CREATE) at UCSD.

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I do not recommend that any junior faculty member assume a heavy administrative load. It cuts back on the time for teaching and research that university administrators value and judge for promotion. In my case, it postponed my promotion to tenure. But it did have significant rewards. Among them was the collaboration with Courtney Cazden.

Courtney and I met at the summer-long Social Science Research Council Conference on “Language, Society, and the Child” at UC Berkeley in the Summer of 1968. I attended as a graduate student. Courtney, a distinguished scholar of child language, was one of the members of the conference faculty. We engaged in many informal discussions about the role of language in young children’s development, especially that of Black children. Later, when she was on the HGSE faculty, she wanted to see if her primary school teaching would be different, now informed by her new understanding of language development.

She asked me if I could arrange a teaching assignment in a working-class elementary school, and if I would be interested in documenting her teaching. Because of my position in teacher education, I was able to arrange for her to teach in a primary grade classroom in the urban core of San Diego for the 1974-75 year. Her combined first, second, and third grade classroom was composed of Latino and African American students referred to her by other teachers at the school.

I approached the prospect of documenting Cazden’s classroom instruction from an amalgamation of academic orientations: sociology, anthropology, and the burgeoning field of sociolinguistics. I was taken especially by Frake (1964), Goodenough (1964), and Garfinkel (1967) who framed culture in terms of participation or membership in a society — what one has to know, believe, and especially do, in order to operate in a manner that is acceptable to the members of that community or a society. I extended that logic to Courtney’s classroom, asking: “what do students have to do in order to be seen as competent members of the classroom community?”

Our interests coalesced in this collaborative project, energized by a shared concern for educational equity. The collaboration was productive. Learning Lessons (Mehan, 1977), Classroom Discourse (Cazden, 2001), several joint publications (e.g., Cazden & Mehan, 1989; Mehan & Cazden, 2014), and an enduring friendship emerged from the coincidence of attending an innovative summer program.
This snippet of dialogue crystalizes many of the features of classroom discourse Courtney and I documented by contrast to the discourse of everyday life. While everyday conversations are organized in two-part sequences (Sacks, Schegloff, & Jefferson, 1974), classroom lessons are organized in three-part sequences: a teacher’s initiation act induces a student’s reply, which in turn invokes a teacher’s evaluation (Mehan, 1977; Sinclair & Coulthard, 1975). This three-part I-R-E structure exists because teachers often ask “known information questions” (Mehan, 1977; Sinclair & Coulthard, 1975) in which students’ knowledge is tested rather than new information sought from them. Recitation lessons, therefore, are teacher-centered and require students to respond, often individually, with student behavior evaluated quite publicly.

In everyday conversation by contrast, speakers routinely ask questions in order to obtain information they do not possess (“information-seeking questions”), identify the next speaker who is someone who presumably possesses that information, and acknowledge or thank them for their trouble (“acknowledgement”). The presence of an evaluation, which comments on a student’s reply to a question, is one of the features that distinguishes conversations that take place in classrooms, tests, and other interrogation settings (such as courtrooms and congressional hearings), from those that occur in everyday situations. Not all teacher-student exchanges are so circumscribed. If students do not answer correctly in their turn right after being invited to respond, much longer, extended sequences can continue until a correct response is provided.

Another feature of classroom lessons is implicit in this snippet. Teachers have the right, by virtue of their position of instructor and authority, to allocate speaking turns to their students. Courtney and I reported three turn-allocation types: An “individual nomination” (in which teachers identify next speaker by name), an “invitation to bid” (which invites students to compete for turns, usually by raising their hands, and an “invitation to reply” (which entitled students to reply in a group or a chorus).

These turn allocation types recapitulate some of the features of the wider society in which classrooms and schools in the US are situated. Students’ invitation to compete for turns at talk becomes a microcosm of the competition they face from kindergarten to graduate school for other scarce educational resources, such as course grades, access to high ability groups, rigorous academic tracks, seats in selective colleges, and jobs in the workforce.

The Mehan-Cazden study of teacher-student interaction was cited in “cultural discontinuity” studies (e.g. Au & Jordan, 1980; Erickson & Mohatt, 1982; Heath, 1983; McCullum, 1989; Shuy & Griffin, 1978). Researchers who study the language spoken in the home have suggested that recitation-type lessons in school may be compatible with the discourse patterns in middle-income families but may be incompatible with the discourse patterns of certain lower-income minority group families. This discontinuity, in turn, may contribute to the lower achievement and higher drop-out rates among under-represented minority students.

While providing a powerful antidote to cultural deprivation explanations of educational inequality, the cultural discontinuity account is not without its detractors. Critics (e.g., Foley & Valenzuela, 1990; Levinson & Sutton, 2001; Ogbu, 1987; Varene & McDermott, 1998) fear that its liberal assimilationist assumptions are inadequate to the real challenges of creating equity in a racialized capitalist order because this perspective can mistakenly reduce inequality to a problem of miscommunication. Even if parents read
more stories to their children at bedtime, or teachers ask more information-seeking questions or use “invitations to respond” turn-taking strategies with language minority students, critics argue that structural inequities (race- and class-based discrimination, glass ceilings, down-sized corporations, and institutional discrimination in the work-place, for example) would remain and need to be addressed.

The Cazden-Mehan project was funded by the Ford Foundation. The Project Officer, Marge Martus, thought Courtney and I would benefit from interacting with the research group organized by Mike Cole at Rockefeller University. Courtney and I were not prepared. It was early in the 1974-75 school year. Courtney had not implemented much of her instructional repertoire. I didn’t have much to show from analyzing a few videotapes of Courtney’s lessons.

The visit was fortuitous. Conversations helped shape later publications. I don’t remember much about the exact insights that emerged from discussions. But I do remember a consequential conversation. During a break in one session, I asked Mike why he had never returned to California. He replied: “No one has ever asked me.” That off-handed comment led to the recruitment effort that brought Mike Cole and his research group (composed of Peg Griffin, Ken Traupman, Denis Newman, and Laura Martin) to UCSD. Mike’s Laboratory of Comparative Human Cognition produced unique collaborative research projects and publications, often published with LCHC as the author (notably LCHC 2003, 2010, ongoing). Mike also led the transformation of the UCSD Communications Program into the Communication Department.

Another fortuitous connection was meeting Ray McDermott. He offered trenchant, insightful critiques of the analysis Courtney and I had started. And he did so in a supportive, collaborative manner. He invited me to watch videotapes of a classroom he had studied. That invitation led to a unique collaboration, later humorously named the SHLEPPERS (“Society for the Hermeneutic Location of Everyday Practices Primarily in Everyday Research Settings”) by Jeff Shultz. Since then, Ray has conducted important studies of the social organization of human communication and school success and failure (e., g. Varenne & McDermott, 1998). Currently, he is working on an intellectual history of genius, intelligence, race, and capital.

At a sociolinguistics conference in the early 1970s, Jeff Shultz and I made similar observations about discourse and interaction during discussions. Afterwards, he invited me to the lab of his advisor, Fred Erickson, who was then on the faculty at Harvard. Jeff led me through a spacious office, cluttered high with books, manuscripts, cans of film, to a clothes closet converted into a film-viewing facility. A “movieola” was mounted on a long table. Jeff spooled 16mm film through the device frame-by-frame, while describing gestures and body movements. I had never seen anything like it. My sociological colleagues often chided me for being too “micro” in my analysis of face-to-face interaction. But here was an analysis that focused on moment-to-moment hand and head movements! Jeff connected me to Fred, a chance meeting that led to an endearing friendship and career-long collaboration.

Videotape played a central role in our research. It had become common for researchers to extract quotes or strings of utterances from audio- or videotape. But our fledgling SHLEPPERS group was among the first to use videotape as a tool to study the social organization of complete events in educational settings, such as classroom lessons, testing sessions, counseling sessions. Fred, Jeff, Ray, and I – sometimes joined by Peg Griffin and Mike Cole – often met informally at research conferences such as AERA or AAA to watch videotape each of us had gathered. It was a bit odd. Here we were attending an important professional conference in an inviting city such as New Orleans, Montreal, or NYC – huddled in a dark room, watching sometimes badly
focused videotape instead of attending sessions or seeing the sights.

**Educational Decision Making in Counseling Sessions.** Counselors play an important role in tracking students. By assessing students’ abilities, helping them decide which classes to take, advising them about their academic progress, and providing them with information on postsecondary-education options, counselors are in a position to influence students in a number of ways that help to determine their future college and career possibilities.

The question thus becomes: what are the grounds upon which counselors and other school officials make educational decisions. Erickson & Shultz (1982) examined face-to-face counseling sessions in order to discover how the decisions that have so much influence on student careers are constructed. Pioneers in the use of video to study human behavior, they videotaped and analyzed the interaction between community-college students and counselors. This work provides a description of some of the often-hidden interactional practices that assemble key steps in students’ careers.

According to Erickson and Shultz, counselors perform several roles, and these are sometimes at odds. As advisers, they are supposed to act on behalf of students – as advocates. As officers of a formal institution, they are supposed to act on behalf of the school – as judges. Depending on which role they take with students, counselors can and do influence students’ careers in different ways. For example, by the manner in which they describe career options and the means available for achieving them, counselors may open or close gates to career paths.

Their analysis of counseling sessions shows that “universalistic” factors (such as course grades or degree requirements completed) did play a role in counseling sessions. But these factors interacted with “particularistic” factors that emerged during the course of interviews to produce differences in counseling treatments.

Especially salient was the establishment of “particularistic co-membership” (Erickson & Shultz, 1982; see also Erickson, 2004) between counselor and student. Despite societal norms and organizational rules specifying that counseling decisions should be made on universalistic grounds, participants often “leaked” particularistic information during the course of counseling interaction. Joint ethnic identity is often visually available. Speech patterns may signal other similarities in background, while “small talk” sometimes reveals common interests in such activities as sports, church work, and the like. Erickson and Shultz found that students who had established a high degree of co-membership with counselors were more likely to receive positive counseling, including rule-bending and extra help.

In sum, puppeteering practices in testing situations and particularistic co-membership in successful high school counseling sessions are cogs in the interactional machinery that sort students onto next steps on the ladder to college and career.

**Part II: Using Educational Inequality Research to Construct Social Equity Programs**

My early empirical studies were, for the most part, concerned with the social construction of educational inequality by school sorting practices, including educational testing (Mehan, 1978), tracking (Cicourel & Mehan, 1983), and special education placements (Mehan et al., 1986). My work – and that of SHLEPPER colleagues who influenced me considerably – documented how low-income students of color were treated differently than their middle-income white contemporaries in face-to-face interactions with teachers, testers, and counselors.

A fortuitous connection turned my attention away from only documenting the social practices constructing educational inequities to using research to inform systemic attempts to construct social equality. A colleague asked me to lead her
class for a day. It was going to be easy, she said, because there was a guest speaker. All I had to do was introduce her and monitor the question-and-answer period after her talk. The guest speaker was Mary Catherine Swanson, the Director of the Achievement Via Individual Determination (AVID) program. AVID is an educational reform program designed to narrow the achievement gap between socio-economic and ethnic groups. AVID promises to improve the achievement of low income and minority students and increase their chances of attending college by offering them a more rigorous college preparatory high school curriculum accompanied by academic and a special college-prep class.

I saw potential in this “untracking” approach because it assumed that low-income underrepresented minority youth could be prepared for college if school officials made structural changes in curriculum such as adding a special elective class and modified placement practices to increase the representation of underrepresented minority students in college prep classes. With Mary Catherine’s approval, my colleagues and I conducted participant observation studies of AVID programs. Amanda Datnow and Lea Hubbard were my principal collaborators. We came together by luck of the draw. Lea took my Introduction to Sociology course. Intrigued, she followed up with upper-division courses and graduate studies with me. Amanda was assigned to me through an undergraduate internship program. After completing a Psychology BA and working on the AVID project, she completed her PhD at UCLA.

The first round of our AVID study focused on a half dozen high schools in San Diego across three years. Mary Catherine and I collaborated to describe the program’s early successes, disappointments and challenges (Mehan & Swanson, 1994). That paper was later expanded into a book (Mehan et al., 1996). Another set of studies documented the expansion of AVID’s goals and processes into Kentucky, North Carolina, and Virginia schools (Datnow, Hubbard, & Mehan, 2001).

Especially notable features of AVID’s implementation were the consequences of its challenge to fundamental cultural beliefs about academic success and the distribution of intelligence and ability along racial lines. Long-standing and deep-seated cultural beliefs in schools throughout the study sites led to tracking practices that excluded Black students from honors and AP courses and left them with less opportunity for future academic success than their white peers.

AVID’s call to place URM students in college-prep courses met resistance from some educators and community members who believed that intelligence is fixed, natural, and racially based. They said Black and Latino students lacked these skills. This educational reform, like so many others, required the efforts of strong, vocal, and well-respected advocates, in collaboration with other concerned educators, to navigate the oppositional discourse about intelligence, race and academic achievement they encountered.

AVID’s expansion was not always smooth. For example, educators in Kentucky recoiled from designating the students that AVID served by their race and class. Rather than retreating from serving schools that had requested their services, AVID redefined their student population as “students in the middle.” When teachers were unable to gain district approval for offering an AVID class during the regular school day, they resorted to offering a “zero” class before the regular school day, or one after school.

Creating a Model System for Expanding Diversity and Improving Students’ Life Choices. An unexpected albeit significant change in California State education policy led me to a partnership that advanced the equity agenda I had long espoused. In 1995, The Regents of the University of California voted to eliminate affirmative action in admissions. This decision had significant consequences
throughout the UC system. The diversity record on eight UC Campuses with undergraduates was dismal; for example, UCSD, my campus, enrolled fewer than 2% African Americans students. Faculty and administrators up and down the UC System feared that – without Affirmative Action – that unenviable record would become even worse.

A small but committed group of UCSD faculty, community members, and students led by Thurgood Marshall College Provost Cecil Lytle responded to the Regents decision. He recruited me to the cause. We proposed that UCSD open a 6–12-grade college-preparatory school on campus for low-income students to ensure they would be able to walk in the front door of UCSD or any other 4-year college (Lytle, 2007; Mehan, 2012).

I participated actively in this effort, attending weekly meetings of the UCSD Outreach Task Force during 1997. This led to the formation of the Center for Research on Educational Equity, Access, and Teaching Excellence (CREATE) and a model school (The Preuss School, described below). I served as Director of CREATE and served on the Preuss School Board of Directors from 1999–2011, when I retired.

Our initial 1997 proposal for a model school on campus was not supported either by the full faculty or the campus administration (Lytle, 2007; Mehan, 2012). Later that same year, however, the combined forces of public outcry, negative press reports, and pressure from the Regents persuaded the campus administration to reconsider. More public meetings were held to discuss the possible sponsoring and development of a charter school, with the result that community members broadly supported the concept, insisting that the school be located on the UCSD campus, not in an underserved community.

CREATE and the new charter school – The Preuss School – opened in Fall 1999, as part of a more comprehensive outreach plan approved by the chancellor and the academic senate in November 1997. Both CREATE and Preuss came into being, partly through the lengthy and contentious public debate about the concept of the charter school as well as the nature and purposes of the university itself (Rosen & Mehan, 2003).

The UCSD Academic Senate and Chancellor assigned CREATE responsibility for coordinating campus-wide outreach initiatives; widening and developing partnerships with struggling K-12 schools; conducting research on matters of educational equity; and supporting schools as they adapted principles developed at The Preuss School to their own circumstances. The responsibility of the on-campus Preuss School was two-fold: (1) to prepare students from low-income backgrounds to enroll in 4-year colleges and universities and (2) to serve as a model for public schools seeking to improve education for underserved youth. The school only enrolls students from low-income households (earnings are less than twice the federal level for free- and reduced-cost lunch eligibility) and whose parents or guardians are not graduates of four-year colleges. Students are selected randomly, by lottery. Now in its 20th year, the school has prepared approximately 1,300 low-income students from across San Diego for college.

The school’s guiding principles were derived from current thinking about cognitive development and the social organization of schooling. Research suggests
all normally functioning humans have the capacity to complete a rigorous course of study in high school – one that prepares them for college – provided that course of study is accompanied by a system of social and academic supports (Bruner, 1986; Cicourel & Mehan, 1983; Cole, 1999; Mehan et al., 1996; Meier, 1995; Oakes, 2005).

In most U.S. high schools, conventional practice holds instructional time constant for all students but varies the curriculum offered. This typically results in tracking – meaning that some students are placed in classes in which they receive instruction intended to propel them toward college, while other students are placed in vocational education or general courses in which they receive instruction aimed at preparing them for the world of work after high school.

Tracking has significant negative consequences. Research shows it to be biased and inequitable (Cicourel & Mehan, 1983; Oakes, 2005). The distribution of students to college-prep, general, and vocational education tracks is often disproportionately related to ethnicity and socioeconomic status. Children from low-income or one-parent households, or from families with an unemployed worker, or from linguistic and ethnic minority groups, are more likely to be assigned to general or vocational education tracks. Students from middle- and upper-income families are more likely to be assigned to college-prep tracks. Furthermore, low-income students of color are consistently overrepresented in special education programs and continuation schools, and they are underrepresented in programs for the “gifted and talented.”

“Detracking” instructional models (Alvarez & Mehan, 2006; Burris et al., 2008, 2009; Oakes et al., 1997; Rubin, 2006) deliberately reverse the conventional time-curriculum equation. The higher students’ academic performance, the less scaffolds needed; likewise, the greater students’ academic needs, the more academic and social supports provided. The Preuss School implements a detracking model that recognizes the importance of dynamic support for academic development.

Preuss is a single-track college prep 6-12 school. High school courses are certified “A-G” (those that UC and CSU accept for college admission). Upper-division courses are Advanced Placement (AP) certified. Students also take AP tests that offer college course credit. This policy was instituted to give Preuss students access to a demanding course of study as an end in itself and at the same time to prepare them for college courses. AP courses have the additional benefit of adding points to students’ GPA. An A in an AP course counts as a 5 on the 4-point GPA calculation; a B counts as a 4, etc. (This scheme accounts for US students accumulating 4.5 GPAs and higher on a 4.0 scale.)

Among others, Darling-Hammond (2010) suggests that distinctive features of successful schools in the US, Europe, and Asia support a rigorous curriculum with extended learning time. Students in the US attend school for 165–180 days, while it is normal for students in Europe and Asia to attend school for 190–220 days, accompanied, in some countries, by extra test-preparation classes after school. Consistent with this research, Preuss extends the school year by 18 days, which provides further opportunities for students to develop skills and deepen understandings.

Preuss students are offered other opportunities to strengthen their academic skills. UCSD students serve as tutors in class and after school. Students still in need of additional help are required to participate in tutoring sessions on non-school days (“Saturday Academies”). Academic support is complemented by social supports. In addition to a general academic counselor, students benefit from a college counselor who is conversant with the college admissions process. This counselor takes a personal interest in graduating seniors, assisting each one with financial aid applications, statements of purpose, and soliciting letters of recommendation. A grant
from the Hirschman Fund – established in memory of Lisa Hirschman by her husband Professor Emeritus Peter Gourewich – provides clinical psychologists to assist individual students. The school has a full-time nurse. (The teachers’ union in Chicago is the most recent group to recognize the value of similar support services when bargaining with their district in 2019.)

Interpersonal relations are less visible but equally if not more important than the structural dimensions of the school’s college-going culture. The Preuss Administration seeks to select teachers and staff who are subject matter experts and believe that low-income under-represented minority (URM) students can succeed at the highest levels. They manifest this caring in day-to-day interactions with students. The school’s “Advisory Program” exemplifies this commitment. The program, composed of a class period dedicated to academic advice and personal guidance, is ideally led by the same Preuss teachers from sixth to 12th grade. Having consistent Advisory Teachers is intended to foster trusting relationships between students and teachers. Advisory Teachers provide strategies for mastering course material; they arrange for individual or group tutoring for challenging courses (especially AP Calculus and AP European History).

As college application time approaches they offer college information, test prep, financial aid information, and guidance in preparing statements of purpose. They play an important role in preparing their advisees for their year-end “Presentations of Learning.” Students also engage their advisory teacher in personal issues, such as fears or reluctance about going to college. Neighborhood peers may mock them for wearing uniforms, or starting school earlier in the year and ending later. They may have difficult interactions with a particular teacher.

Since its inauguration in 1999, The Preuss School has achieved an impressive record. On average, 95% of Preuss students are accepted to four-year colleges and universities; approximately 85% enroll. This figure compares favorably to national data, showing that, on average, 39% of Hispanic students and 36% of Black students enroll in college in the fall after graduation (NCES, 2018). It also compares favorably to the college enrollment record of students who applied to Preuss but were not accepted through the lottery. Strick (2012) estimated that between 40% and 64% of that comparison group enrolled in four-year colleges in the fall after their graduation.

Of particular note is the increase in the percentage of students attending UC San Diego as of 2013. This increase coincides with the beginning of the Chancellor’s Associates Scholarship Program, designed to increase the number of local URM students at UCSD. The program offered Preuss students an extra $10,000 per year scholarship to attend UCSD. The school has also accumulated a number of accolades, including being named the ‘most transformative high school in the United States’ by Newsweek for three consecutive years. These data provide concrete evidence that low-income students of color can close the achievement gap and be prepared for college when provided with rigorous instruction accompanied by an extensive system of scaffolds.

Restructuring and Reculturing a Neighborhood School. The successful outcomes of the coalition of UC San Diego faculty, community activists, elected officials, and generous philanthropists in creating The Preuss School on the UCSD campus influenced another formation of a coalition of parents and teachers. Their aim was to reform Gompers High School, a local failing neighborhood school, into Gompers Preparatory Academy, a college-prep high school modeled on The Preuss School.

Gompers Secondary School was originally an urban 7–12 school located in Southeastern San Diego. It had operated for over 50 years in a community with a high crime rate and a lengthy history of gang-related violence. In 2004–2005, Gompers
was divided into a 6–8 middle school and a 9–12 high school. Unable to meet its No Child Left Behind performance targets for six consecutive years, district leaders planned to close the high school as soon as the nearby newly constructed Lincoln High School was completed and to restructure the remaining Gompers middle school.

The situation in Gompers Middle School was serious. When it opened in 2004, there were 18 teacher vacancies out of a 50-teacher staff; six vacancies remained in math and science in January of that school year. Teacher attrition rates were over 70%. This meant that students were faced with a stream of substitute teachers, a situation that militated against high-level learning and the achievement of No Child Left Behind annual progress goals. Teacher and student absences were high; the average daily attendance rate hovered near 90%. The physical plant was deteriorating. Teachers openly expressed their dislike of students, violent fights occurred regularly, and over 1,000 students were suspended annually (Kenda, 2008).

A task force of parents, teachers, administrators, and community leaders (notably from the Chicano Federation, The United Front, the San Diego Organizing Project, and the Urban League) formed to discuss options for restructuring Gompers Middle School. It was decided, following the successful enrollment at Preuss of students from the Gompers neighborhood, to invite UCSD to join the conversation. Professor Cecil Lytle, and I were asked to consider whether UCSD could “take over” Gompers and form a UCSD-managed charter school, similar to the Preuss School. In light of the UCSD administration’s reluctance to sponsor another charter school, Lytle and I recommended forming an independent (501c3) charter school. This time UCSD would not manage the school. But faculty and staff could be invited to serve on the Board of Directors. We agreed to serve on the task force and later, the Board. Gompers parents liked this idea, influenced by knowledge gained by more than 70 who had at least one child at Preuss. Confident that their students could be academically successful, Gompers parents supported the proposed reformation of Gompers into a college-prep charter school in partnership with UCSD and community groups.

I as Director and Lytle as Associate Director of CREATE pledged material resources, including UCSD students to serve as tutors as well as our extensive understanding of the requirements for teacher professional education, parent education and research and evaluation. Of possible greater importance was the intellectual capital the university provided in terms of a theory of action that linked equity and excellence for the new Gompers and political capital for interacting with community members and district leaders (Mehan & Chang, 2010).

According to California charter school law at the time, a majority of parents hoping to enroll their children in a new charter school are required to sign a petition for its approval. Parents and teachers joined together in leading the petition drive. They walked the streets around the school to explain the background and intent of the school; this resulted in a substantial majority in support of the conversion. Support was also offered by influential organizations: the California Charter Schools Association provided pump-priming funds as well as advice on preparing relevant documentation and other political matters; funding was provided by another local foundation for the first Gompers “culture camp” (see below).

Following several other political forays, including confrontations with the teachers’ union, approval for the Gompers charter proposal was unanimously granted by the...
SDUSD School Board on March 1, 2005. Opening day was scheduled for September 5, 2005. This circumscribed time schedule meant that teachers and staff needed to be selected quickly. To avoid challenging SDUSD’s policy prohibiting personnel doing non-district work on district time, recruitment interviews were held at CREATE before and after school and on weekends. A teaching staff of 47 along with a senior leadership team and resource teachers in math, English language arts, and science was in place just in time.

The leadership team initiated “culture camp”, a 2-week professional development activity aimed at bringing staff together to negotiate and agree on a shared philosophy of how to engage collaboratively with students. This philosophy was sustained and reinforced through regular refresher sessions throughout the school year. There is now a commonly agreed framework for assigning and receiving homework, classroom organization and the conduct of the school day and lessons; and how to deal with absences, latecomers, and students’ movements between classes.

Gompers posts motivational signs and other symbols around the school to reinforce its commitment to a college-going culture of learning. College pennants adorn classroom and hallway walls, and students enter the school through “the Gates of Wisdom.” A banner underneath the sign reads, “GOMPERS IS A UCSD PARTNERSHIP SCHOOL.” The school motto, “REACH” (Respect, Enthusiasm, Achievement, Citizenship and Hard work) is visible everywhere. Teaching and administrative staff dress “professionally” while students wear school uniforms. The intention is to signal to students and the community that Gompers is about serious learning for college entry.

Like Preuss, Gompers offers a college-prep curriculum to students, and has similarly instituted practices for supporting rigorous student learning. When it first opened, many incoming students were well below state and federal recognized grade level. Class times were therefore allocated variously across academic subjects. Math and English language arts were offered in 90-minute slots, five days a week. Afternoon classes were organized as 90-minute blocks to enable the teaching of science, social science, language, and PE on alternating days. Subject matter teachers assisted the math and English teachers in the morning and roles were reversed in afternoon classes.

As at Preuss, learning time was extended. Whereas Preuss added days to the school year, Gompers’ solution was to add minutes to the school day. This meant that school times tallied with those of other local schools, and accommodated students’ families’ vacation and travel plans (many Latino families travel to Mexico for an extended Christmas break). The last 30-minute period of each day was flexible: students who were performing well could participate in an extracurricular activity, while additional tutoring sessions were made available for students who were not performing so well. Extracurricular activities and tutoring both continued into after-school hours.

It is recognized at Gompers, as at Preuss, that professional education occurs most effectively on site, especially when embedded in actual everyday classroom practice (Darling-Hammond, 2010). Time was therefore made available during the school day to enable teachers to meet in grade-level or department teams to take stock of progress, plan and assess lessons, and negotiate the curriculum.

A Family Support Center operates where staff interacts with parents (using English or Spanish, as appropriate), to familiarize them.

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**Reshaping schooling from a mechanism for social reproduction into a vehicle for social transformation... is not a natural process. It requires a deliberate modification of institutional structures and practices.**
with the school, its values and policies. Staff also provides support for parents in logistical issues such as how to secure immigration papers, transportation, health care, and childcare.

Gompers has expanded from a 6–8 middle school to a 6–12 high school. Now named “Gompers Preparatory Academy” to signal its college-preparatory orientation. Like The Preuss School, Gompers added one grade level at a time, starting in 2008 with a ninth grade. As of Fall 2019, the school enrolls 1,300 students.

The faculty and staff regularly engage in self-evaluation strategies and has made steady progress toward specified goals. As of 2016, 100% of Gompers seniors graduate, a figure that compares favorably to other high schools in San Diego’s low-income neighborhoods. Thirty-five percent of the first graduating class was accepted in four-year colleges. This rate rose to 46% in 2014 and 89% in 2016. The remaining students enroll in community colleges. This enables Gompers to celebrate its pledge to 100% graduation and 100% college enrollment (Mehan, 2012).

Preuss as a Model School: Successes and Limitations. At the outset, the founders of Preuss hoped it would prepare low-income youth for admission to college and become a model for public education. The first goal has certainly been met and exceeded. The second has had a more limited but tangible success. Gompers Preparatory Academy, a “UCSD Partnership School” in Southeastern San Diego has incorporated many Preuss features into its college-prep program.

UCLA and Berkeley campuses also had few URM youth on their campuses. Black and Latino/a students had not enrolled in proportion to their percentages in high school or the general population. Like all UC campuses, they were prohibited from using race as a factor in admissions decisions. In response, like-minded colleagues on the three campuses agreed to develop “university assisted schools.”

Preuss and Gompers by UCSD, Cal Prep by Berkeley, the UCLA Community School and Mann UCLA Middle School, near or on their campuses emerged to develop educational practices for the education of underrepresented youth, conduct basic and design research on the suitability of those practices, and assist other schools develop “college going cultures of learning” (Mehan, 2012; Quartz et al., 2019; Weinstein & Worrell, 2016). For several years, Berkeley, UCLA, UC Davis, and UC San Diego colleagues collaborated to create the conditions required to achieve high-quality public schooling for low-income students of color, inform national and state-level policy on the causes of under-representation, and develop remedies to the injustice of underrepresentation (Quartz et al., 2017).

Conclusions

Theory, Research, and Institutional Change. My thinking about the role of theory and research in institutional change is implicit to this point. Therefore, I will spend a few paragraphs being more explicit. I hope it is clear that the goal of the interventions described in this paper are to give the sons and daughters of the working classes some of the skills and knowledge currently seemingly reserved for the sons and daughters of the well-to-do. This assumes that socializing all children with the cultural capital of dominant groups will provide members of disadvantaged groups with some tools and resources to achieve social mobility and to help them develop a
critical stance toward educational inequality. This commitment implies a long-term engagement, which benefits from ethnographically informed approaches.

My admittedly utopian vision contrasts with two other dominant perspectives on the function of education. On the one hand, I respect Horace Mann’s optimistic progressive ideal that by making formal education available throughout the class structure disadvantaged groups can gain access to privileged cultural knowledge and thereby gain access to higher rungs of the ladder of social mobility. This can happen despite efforts of the privileged groups to erect barriers to expanded access to valued knowledge. On the other hand, I do not accept Bourdieu’s decidedly pessimistic view that schooling can never be a vehicle for social transformation. Reshaping schooling from a mechanism for social reproduction into a vehicle for social transformation, however, is not a natural process. It requires a deliberate modification of institutional structures and practices. So, too, changing students’ attitudes and perspectives cannot be left to chance. It requires deliberate and overt re-socialization – and a heavy dose of luck – that emerges from modifying the institutional structures and practices of schooling.

These institutional arrangements include a rigorous course of study, structural changes in the quantity and quality of instructional time, community endorsement and involvement, a shift in the organizational culture of the school, including carefully selected instructional staff who personalize their interactions with students and provide opportunity for students to develop an academic identity without sacrificing their neighborhood identity. The changes we have observed in “university assisted schools” suggest that with the appropriate allocation and arrangement of institutional resources, schools have an increased chance to become sites of transformation that includes changes in students’ life trajectories.

Institutional change is an uneven process at best. Privileged groups do not relinquish their lofty status easily. They push back. SAT Prep courses, summer learning activities at colleges, paid consultants who help students prepare college applications – even bribery – are just a few of the strategies the privileged deploy in order to protect their positions and pass on advantages to their children.

Unfortunately, at this point, we simply do not know if the changes described briefly above indicate that the social-class trajectory of people from humble circumstances can be modified more permanently. Research shows that Preuss, Gompers, Cal Prep, and UCLA’s Community School students parlay the academic and social skills they acquire in high school into the next step on a career ladder – namely college enrollment. However, we don’t know if these graduates will be able to convert their newly acquired cultural capital into more coveted economic benefits, such as well-respected jobs and lasting civic engagement. It is possible that their changes in attitudes and career trajectories will be swallowed up by the more intense social pressures of the privileged classes as time erodes the strength of the extensive academic and social supports they drew on to develop a critical perspective as students in innovative, thoughtfully designed high schools.

It should also be clear from these short stories that because researchers intervene in the activity by participating in its design and the design of the research about that activity, researchers’ actions partially constitute them (Cicourel, 1964). The special nature of our research approach 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, and gaps between intentions and actions.
I have adopted an ethnographic research strategy in most of my projects. Ethnographers conduct their research over an extended period of time while attempting to describe events, objects, and people in rich detail from the point of view of members of society. In some of our recent projects, researchers and practitioners have adopted a different research approach—retaining the major tenets of ethnography while changing the relationship between researchers and practitioners. They collaborate on each phase of the research process: mutually defining research problems, gathering research materials, analyzing them, and making them public.

For example, while the school was being built, the founding Preuss principal and I frequently made joint presentations about its origins and development at educational conferences and then published them in journals (e.g., Alvarez & Mehan, 2004, 2006). CREATE researchers also collaborated with Preuss teachers to document the academic performance of Preuss students in high school (e.g., McClure et al., 2013). Preuss educators are also interested in students’ lives once they enroll in college. This interest led to a Preuss teacher’s dissertation and a joint publication describing some of the challenges that students from low-income families face while trying to reconcile their ‘home identities’ with their new ‘academic identities’ (Mehan & Mussey, 2012). Preuss teachers developed other research interests, too, such as whether the tests students took before entering the school predicted later academic performance. These teacher-generated research questions have led to joint reports by Preuss and CREATE, that, in turn, have fed back into Preuss school policy and practice. (Barton et al., 2011; Kenda, 2008). In these and other studies, instead of conducting research on practitioners, we have attempted to conduct research with practitioners. We believe that this approach can contribute productive insights for transforming schools in the direction of social justice.

The egalitarian ideal of co-theorized and co-written ethnographies has the potential to extend research in the social sciences in provocative new directions. But it is not easy to “decolonize” research (Wood, 1999). The pressures from the academy to produce “scientific” research (i.e., individually authored, objective discovery) works against encouraging participants to define research questions, gather materials, and contribute to publications as does the instinct to make the final report look good to the academy and pleasing to the natives.

**Conditional Processes in School Reform.** We learned that formulating the school reform process as a “conditional matrix” (Hall & McGinty, 1997) coupled with qualitative research is more helpful in making sense of the complex, and often messy, process of school reform than either technical-rational (Pressman & Wildavsky, 1973; Smith & Keith, 1971) or organizational development (Fullan, 1991; Louis, 1994) models propose. Our analyses of AVID and our partnership schools, Pruess and Gompers, reveal that the reform implementation process is marked by several important contingencies:

1. Reform efforts in schools do not succeed on simple technical considerations alone, nor do they proceed in a linear fashion, fixed in time and space.
2. The consequences of actions taken in one context become the conditions for actions taken in other contexts. Some educators may initiate reform efforts, others may push or sustain them, still others may resist or actively subvert reform efforts. This range of actions shows that the agency of educators is part of a complex dynamic, shaping and shaped by the structural and cultural features of school and society.
3. The implementation process is viewed differently from different perspectives.
4. The culture of the school mediates educators’ actions and structural constraints.
5. School-site educators do not respond to design team or government actions.
passively and automatically, as though they were irresistible pressures bearing down on them.

Neither the AVID reform agenda nor the Preuss or Gompers educational plan was formulated by the design team and then directly and faithfully implemented by educators on the ground. Reformers’ intentions in both settings were transformed as the reform effort unfolded. Educators on the ground made policy in their local contexts; they did not simply respond to directives issued by the design teams. As Fred Erickson remarked to me: Neither Ulysses nor Abraham had a strategic planning committee.

A final comment about the role of serendipity in developing meaningful collegial relationships: Based on my experiences, I think the notion of agency, a concept that often appears in sociological descriptions of social action in dialogue with social structures, would be more accurate if luck, serendipity, and fortuitous circumstances were made more central to its definition. Doing so, would move the sense of agency away from strictly “volunteristic action, thoughtful in origin and execution” (O’Donnell, 2016) towards one that takes practical and unplanned circumstances into account. The result will be a more nuanced theory of action.

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About Acquired Wisdom

This collection began with an invitation to one of the editors, Sigmund Tobias, from Norman Shapiro a former colleague at the City College of New York (CCNY). Shapiro invited retired CCNY faculty members to prepare manuscripts describing what they learned during their College careers that could be of value to new appointees and former colleagues. It seemed to us that a project describing the experiences of internationally known and distinguished researchers in Educational Psychology and Educational Research would be of benefit to many colleagues, especially younger ones entering those disciplines. We decided to include senior scholars in the fields of adult learning and training because, although often neglected by educational researchers, their work is quite relevant to our fields and graduate students could find productive and gainful positions in that area.

Junior faculty and grad students in Educational Psychology, Educational Research, and related disciplines, could learn much from the experiences of senior researchers. Doctoral students are exposed to courses or seminars about history of the discipline as well as the field’s overarching purposes and its important contributors.

A second audience for this project include the practitioners and researchers in disciplines represented by the chapter authors. This audience could learn from the experiences of eminent researchers – how their experiences shaped their work, and what they see as their major contributions – and readers might relate their own work to that of the scholars. Authors were advised that they were free to organize their chapters as they saw fit, provided that their manuscripts contained these elements: 1) their perceived major contributions to the discipline, 2) major lessons learned during their careers, 3) their opinions about the personal and 4) situational factors (institutions and other affiliations, colleagues, advisors, and advisees) that stimulated their significant work.

We hope that the contributions of distinguished researchers receive the wide readership they deserve and serves as a resource to the future practitioners and researchers in these fields.
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