

The Inherent Interdependence Of Teachers

No teacher is an island. Teachers might think they are isolated in their classrooms, but Ms. Horn points out that every teacher in a school has a big effect on every other teacher's success.

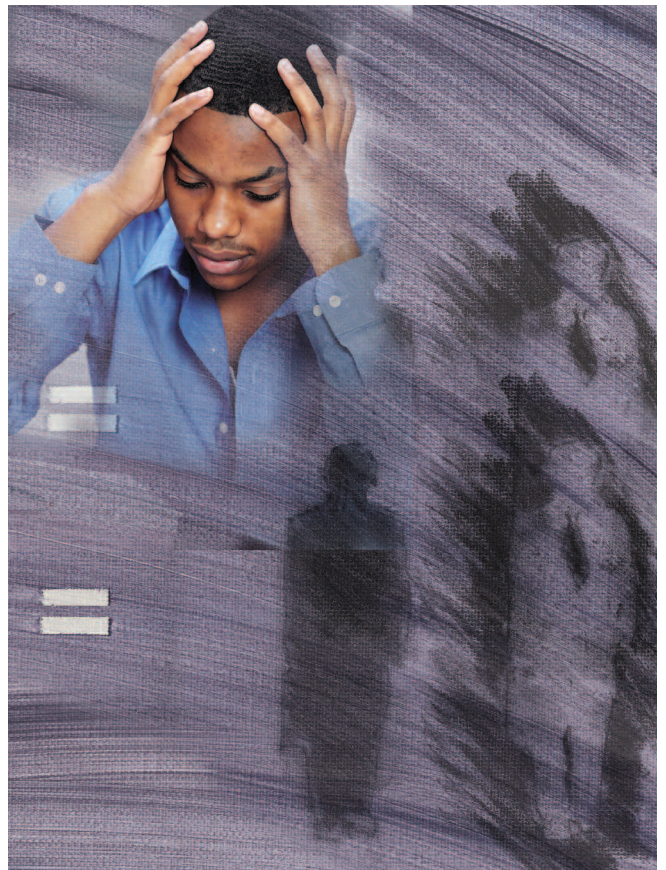
By Ilana Seidel Horn

IN MY second year of teaching, parent/teacher conferences still made me quite nervous. Despite the inevitable trepidation, I had brought this one upon myself — and with a particular sense of urgency. After I phoned the mother and explained my concerns, she willingly agreed to meet with me and her son. Now, here I was, on a warm October afternoon, sitting in my emptied classroom across from Travis (not his real name) and his mother, Ms. A.

Travis was a 10th-grader in my pre-algebra class and had ostentatiously displayed his lack of interest in mathematics since the first days of the class. But his natural curiosity soon betrayed him. He opened up, participating enthusiastically in class discussions, showing tremendous insight and capacity for exploring the ideas we were studying. While the introductions to his presentations were often brusque (“Yo! This is so *easy!* Here’s how it goes . . .”), what followed was so lucid that his classmates looked forward to his explanations. He could even withstand the questioning of his peers and represent his thinking in several ways, thereby demonstrating a deep understanding of the material.

Because he was in 10th grade, I realized that Travis would not meet our state’s entrance requirements for four-year colleges by the end of high school if he stayed in my pre-algebra class. I knew the statistics about African American males and college readiness, and I saw an opportunity to make a positive contribution against

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a negative trend. I had called Ms. A to discuss Travis’ situation, letting her know that I had tremendous confidence in his ability to keep up with the college-prep algebra class. I even offered some after-school tutoring sessions to support his transition into the new class and help him with any content he had missed.

What was more, there was a counselor-friendly way to make the switch, even at this late date: my colleague Mr. Z had an opening in an algebra class offered dur-

ing the same period. Ms. A was enthusiastic and grateful, and we scheduled a conference to work through the details of our plan. But the next day in class, Travis let me know in no uncertain terms, “I’m not going to algebra.”

So these events had led up to our moment of truth. Ms. A and I on one side, Travis on the other. We laid out for him all the reasons why switching to algebra was important for his future. We emphasized what it would mean for his very likely prospects for a football scholarship. Travis sat back all the while, frowning, studying the carvings on the Formica® desktop with his arms across his chest, grunting responses to our relentless prodding. Eventually, I resorted to pleading. Ms. A took a tougher stance, invoking pride, self-respect and, the ultimate maternal trump card, “all that I’ve ever done for you.”

We got nowhere that day. As the school year continued, I would gently razz Travis in class after another one of his sparkling explanations, saying quietly, “You *really* need to be in algebra.” Each time, he frowned and walked away, leaving me perplexed.

Travis’ friend Dustin had watched this saga unfold from the sidelines, and I often felt his eyes on us during these interactions. One day after class, I asked Dustin what was going on with Travis. With a little coaxing, Dustin reluctantly confessed: “He didn’t want to go to Mr. Z’s class because Mr. Z is a racist.”

To this day, I do not know what evidence Travis or Dustin had of Mr. Z’s racism. He, like me and about two-thirds of our department, was European American. I had never been in his classroom and only knew him superficially from lunch conversations in the faculty room and our very infrequent, distribute-the-supplies-and-schedules department meetings. Mr. Z wasn’t somebody I consulted or confided in. I wouldn’t go to him for advice on a particularly challenging student or turn to him for ideas for a captivating lesson. Even in the case of moving Travis up in the curriculum, I had simply confirmed the opening in Mr. Z’s class at lunch one day. It would not have occurred to me to invite him to sit in on the conference to be a part of the transition plan. Mr. Z appeared to be a show-up-and-do-your-thing teacher. He had great affection for certain students and a reputation for telling jokes that kept them amused.

Many years have gone by, and Travis is one of those students who have stuck in my mental craw. For me, he illustrates why teachers working in isolation cannot help all students reach their full potential. Although Hollywood’s celluloid classrooms show hero-teachers rescuing urban students from their life circumstances, as Travis’ example shows, it takes more than just a lone

maverick to make substantial and sustained progress on issues of equity. Travis displayed talent and potential, yet I could not successfully advance him in our school’s curriculum — even when his college eligibility was on the line — because he did not feel welcome or comfortable in my colleague’s classroom. Were he a ninth-grader who had been promoted the following year to Mr. Z’s class, I might have watched helplessly as a bright young mind shut down because of a classroom that was inhospitable to Travis’ particular style of smartness. (Luckily for Travis, Ms. A was not to be deterred from championing her son’s education. She secured a football scholarship for him to a local prep school the following semester, where he enrolled in algebra and did very well.)

Here is the lesson that has stuck with me from all of this. Despite the norms of privacy that pervade teacher culture and the assumptions of our behind-closed-doors independence, we actually *need* our colleagues, whether we like it — and them — or not. Teachers are inherently dependent on one another since no one of us alone constitutes our students’ education. Students move from teacher to teacher, and it is up to us to make that movement coherent. Acknowledging this interdependence is especially urgent when we consider issues of equity.

And, in fact, that is exactly what educational research has increasingly shown. In high schools, Valerie Lee and her colleagues have investigated the circumstances that support equitable achievement.¹ To find such achievement, they looked for schools in which students’ demographic background variables (among them race and socioeconomic status) were not strongly predictive of their eventual level of attainment. Schools that have achieved equitable outcomes share identifiable traits: they have a rigorous common curriculum and a strong organizational push for students to enroll in

challenging courses. In mathematics departments, Rochelle Gutiérrez found that teachers who take collective responsibility for their students' success contribute substantially to this organizational push.² In my own work, I have seen how teachers' collective responsibility supports students' long-term positive engagement in the mathematics curriculum.³ If the preponderance of evidence points to the importance of collaboration in achieving equity, why is this not a commonplace feature of teachers' work?

THE INVISIBILITY OF INTERDEPENDENCE

Given the organization of the school as a workplace, it is not surprising that the collective dimension of teachers' work is often overlooked. In high schools, teachers' preparation time is usually organized to optimize students' choices, not to support teachers' conversation and collaboration. Teachers working in the same subject area or grade level may or may not be housed in similar parts of the school building. They are seldom given paid time to work together to develop a common vision or to discuss shared challenges.

Occasionally, teachers are called on to work collectively. For example, district mandates may require teachers to work on bureaucratic forms of curriculum articulation; sometimes pragmatic realities demand the development of a plan for sharing sparse resources. But in reality, schools do not consistently require much collaboration from teachers. It is not surprising, then, that teachers do not work collectively in the majority of U.S. schools,⁴ especially in high-poverty schools and schools that serve large numbers of students of color.⁵ Norms of privacy allow individual teachers' classrooms to be their personal domains, for better and for worse.⁶

Teachers who want to meet and collaborate with their colleagues often do so at great personal expense. Frequently, they end up donating hours before and after school or sacrificing their scant preparation time.⁷ Even in places where teachers' interdependence becomes an explicit part of their work, it is seldom adequately offset by any reductions in other time-intensive job duties.

I once visited a pilot high school that provided its urban students with a meaningful and rigorous education. As part of the school's design, the teachers were required to meet weekly in both grade-level and subject teams. After talking to the administrators and students and visiting classrooms, I felt inspired by the level of engagement in their education that the students exhibited. Later in my visit, when I interviewed a focus group of teachers, anticipating even more inspiration, I faced instead a group of exhausted idealists. While

they were thrilled to be in a school setting that supported the pursuit of social justice through education, they were absolutely spent, because their additional collegial commitments had not been offset by any reduction in teaching load.

The circumstances of these pilot school teachers made this much clear: we cannot have it both ways. It is unfair to teachers to tout the importance of collaboration, even as we perpetuate a working life that requires all such collaboration to be taken out of their own hides.

IF YOU BUILD IT, THEY WILL COME

In my current work, I am collaborating with urban high schools seeking to raise the mathematics achievement of their ninth- and 10th-grade students. Much of our work involves engaging the teachers with a rich array of professional development. Equally important, though, are the building-level teams that help teachers make sense of the formal professional development and tackle site-specific issues.

We initially gave the mathematics teachers at one school release time in the form of an extra common planning period to meet, consult with one another, work on shared problems, and refine their curriculum and approaches to teaching. The benefits of this arrangement quickly became apparent to those near enough to discern them. Within the building, other departments soon asked the principal for resources to work together and collaborate. Administrators reported hearing students say that the math teachers "really care" about them. Beyond the building, when our partner district saw the benefits for teacher learning, morale, and student learning, the staff there reorganized coaching funds to support a math teacher team in a high school in that district.

The team's focus at the school I'm working with was raising the achievement in entry-level mathematics courses. In the 2004-05 school year, before the team's work began, less than half of the students who entered ninth grade at or below grade level were promoted to 10th-grade math. The following academic year, 83% of those students were promoted. What makes this accomplishment all the more impressive is that the teachers simultaneously increased the rigor of the mathematics they were teaching in their classes.

The teamwork maximized the teachers' goals of increasing student achievement in a number of ways. First, it gave the teachers a place to hold the sometimes-abstract ideas of professional development up against the complex realities of their classrooms. For instance, the teachers were working on implementing a new curric-

ulum and had received training in using it. When one unit required particular cultural knowledge that many of the students did not share, the teachers figured out an appropriate adaptation to bring their students up to speed on a topic the textbook took for granted. In addition, the team allowed the teachers to coordinate their instruction, pacing lessons together and developing shared language and representations for key mathematical concepts. This allowed teachers to easily tutor one another's students after school or in support classes, since everyone knew what kinds of conversations and presentations were going on in the classrooms.

The collaboration directly contributed to the teachers' mathematical learning as well. When teachers did not fully understand a concept, or could not anticipate the ways in which a topic would be hard for students, they turned to one another for brief tutorials or ideas to bring into their own classrooms. The additional planning period also gave the teachers adequate time to contact parents, a critical but often daunting task. They worked hard to let parents know not only when students' performances were slipping, but also when a student had performed well in class or on an assessment.

Finally, with an extra degree of freedom in their own schedules, the teachers worked to cover one another's classes as the grading periods came to a close. During that time, they could hold one-on-one conferences in the hallway with students whose grades were borderline, outlining for them the kinds of things they would need to do to bring their grades up, while a knowledgeable colleague kept the rest of the class working on the day's lesson.

Besides all of the ways in which the collaboration supported the goal of increased student achievement, the teachers consistently reported the unexpected benefit of the emotional support they garnered from the team approach. As one teacher reported, "When there's a problem, when there are issues with a kid, there's a group to talk about it, to say, 'Hey, there are issues here. What do you suggest? What do you think? What's a good way to go?' And so you have this whole giant support system."

Although school as an institution is known for its role in social reproduction, I have yet to meet a teacher who entered the profession with the goal of contributing to the inequities of society. On the contrary, I meet many more idealists who, like me, believe in the promise of education and are eager to make a difference in children's lives.

I am sure that Mr. Z was unaware of his reputation with Travis and Dustin. Yet, clearly, having Mr. Z as a

colleague limited my ability to address issues of equity in my school. What I could do to help Travis or any other student was limited by my context and my colleagues. In obscuring teachers' interdependence with their colleagues, we fail to allow both teachers and students to reach their full potential.

All of this leads me to what I hope are by now obvious questions: What if we built on the dormant power of the teacher collective, starting with our most neglected students? And what if we drew high-caliber teachers into challenging schools by providing them with the means to meet these students' needs? I propose that we rework the world to build support, professional development, and collaboration time into the structure of teachers' work in our neediest schools. Currently, monetary inducements are used to attract teachers into hard-to-staff schools. But for many teachers, no amount of money would lead them into what they view as, at best, a difficult situation. However, we have evidence to suggest that visible support could.

In the second year of our urban school partnership, word of the department's collaborative environment had spread. When two positions came open in the department, 24 teachers applied — almost unheard of in an urban school mathematics department. It is clear to me that there are many teachers out there who are eager and willing to create equitable classrooms. The question that remains is, What will society do to support them in doing so?

1. Valerie E. Lee, Anthony S. Bryk, and Julia B. Smith, "The Organization of Effective Secondary Schools," *Review of Research in Education*, vol. 19, 1993, pp. 171-267; Valerie E. Lee, Robert G. Croninger, and Julia B. Smith, "Course-Taking, Equity, and Mathematics Learning: Testing the Constrained Curriculum Hypothesis in U.S. Secondary Schools," *Educational Evaluation and Policy Analysis*, vol. 19, 1997, pp. 99-121; and Valerie E. Lee, Julia B. Smith, and Robert G. Croninger, "How High School Organization Influences the Equitable Distribution of Learning in Mathematics and Science," *Sociology of Education*, vol. 70, 1997, pp. 128-50.
2. Rochelle Gutiérrez, "Practices, Beliefs, and Cultures of High School Mathematics Departments: Understanding Their Influences on Student Advancement," *Journal of Curriculum Studies*, vol. 28, 1996, pp. 495-530.
3. Ilana S. Horn, "Turnaround Students in High School Mathematics: Constructing Identities of Competence in Mathematical Worlds," *Mathematical Thinking and Learning* (in press).
4. Milbrey W. McLaughlin and Joan E. Talbert, *Professional Communities and the Work of High School Teaching* (Chicago: University of Chicago Press, 2001).
5. Valerie E. Lee and Julia B. Smith, *Restructuring High Schools for Equity and Excellence: What Works* (New York: Teachers College Press, 2001).
6. Judith Warren Little, "The Persistence of Privacy: Autonomy and Initiative in Teachers' Professional Relations," *Teachers College Record*, vol. 91, 1990, pp. 509-36.
7. Lora Bartlett, "Expanding Teacher Work Roles: A Resource for Retention or a Recipe for Overwork?," *Journal of Educational Policy*, September 2004, pp. 565-82.



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