

# Educating Teachers

Harvard gets serious  
about training undergraduates  
for the classroom.

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by Sophia Nguyen

“THIS IS SOMETHING that’s interesting about HTF,” Quan Le ’15 said. “We literally cry every day.”

Le was recalling the Harvard Teacher Fellows’ first collective classroom experience: a two-week stint at Madison Park Technical Vocational High School in Boston’s Roxbury neighborhood. Many of the fellows had taught before—at schools in Botswana or the Philippines; at after-school programs; at summer camps—but few

had ever stood at the front of a classroom as the teacher of record. Sitting in a lounge at the Harvard Graduate School of Education (HGSE) in July, Le—soft-spoken, tattoos of escaped birds flying up his forearms—articulated their general distress: “It felt like these kids deserve so much more. Why are we *here*? It didn’t feel like their teachers were providing adequate supports, and we come in and—we don’t know how to teach. We don’t know how to help them.”

SOMETIMES the crying became infectious. On one morning in early June, the fellows sat in a basement classroom for their daily “teaching lab,” where they studied and rehearsed classroom management strategies that they could try out on the high-schoolers later that day. They broke up into two discussion groups, and, while debating last night’s reading on cultural sensitivity, one-half of the room broke down. Voices rose: *I just want to push back a little on what you said. I think this is very problematic. I’d like to ask you to unpack this point. I don’t think that’s the culture of low-income people—I think that’s a deficit-based model.* The fellows, freshly graduated from the College, were fluent in left-leaning liberal-arts classroom etiquette. Yet the conversation grew tenser, then tearful, even as everyone insisted they had no real conflict. Someone burst out, frustrated, “I agree with you!”

“It’s not like class,” one of them said, finally, face in hands. “It really matters to me. I feel really attacked. I care so much about this stuff, and when the whole group disagrees with me, I can’t take it.”

Noah Heller, HTF’s master teacher-in-residence for math, interceded gently. “We need to work on tuning together. I don’t hear people disagreeing with you, I really don’t. We’re having a robust discussion.”

“It’s so exhausting. I’m so sorry, I cry all the time.” The fellow took a breath. “I’m getting really defensive. I think we all really need to remember that we’re all here to help kids.” At some point, everyone in the circle of chairs had begun holding hands. “There’s not always agreeing or disagreeing,” someone offered helpfully. “Sometimes it’s just—this stuff is really hard, and we’re just trying to figure out what we feel.”

Meanwhile, their other classmates were wrapping up an amicable group problem-solving session, supervised by the English language arts (ELA) master teacher, Sarah Leibel. Told about what had happened on the other side of the room, Leibel responded with upbeat equanimity. It had been a tough first week: “There have been a lot of successes, a feeling of real delight and triumph, as well as feeling discouraged and disappointed in themselves.” Those fellows who’d been educated in excellent, competitive high schools might be experiencing culture shock, she said, while others, more accustomed to under-resourced institutions, saw a school “working hard to

turn around.” Leibel continued: “There are all kinds of emotions around that, connected to the kind of schooling you’ve had.”

“Turn around” is something of a technical term. For years, Madison Park teetered on the edge of a “chronically underperforming” designation and state takeover. It had six leadership changes in as many years, a 65 percent graduation rate, and, at least that week, unsupplied girls’ lavatories: after several deliberate floodings, the rolls of bathroom tissue had been removed. “They’re not mature enough to have toilet paper!” an English instructor informed the fellows, seeming to find the situation much funnier than they did.

The fellows were teaching during a supplemental period ordinarily set aside to prep for state achievement exams. This late in the year, the students mostly spent the time watching movies. “So we’re not doing a *ton* of harm,” Le concluded. “Like—even if we taught badly? It’s not affecting their grades or their ability to pass these tests. I think that made us feel a bit better.” Madison Park did expose the cohort to “the reality of urban education,” in another fellow’s words; the schools where they would do their residencies the following year were uniformly stronger and better-run. Still, the fellows were troubled by their relative privilege, and more specifically by the thought that their learning resulted from their students’ deprivation. As that fellow put it, “For a lot of us, this was the first time we had seen an urban high school on the brink of failure. That was a shock. And I think there were these questions of—obviously, this is the kind of school that needs the best teachers, and we had never even taught a lesson. What are we doing here?”

Working in an adjoining room during the lab, Stephen Mahoney, HTF’s associate director, compared this classroom exposure to the experience of being a

first-time parent: the fellows were shell-shocked, petrified about doing something wrong. Mahoney, who has taught for 26 years and been a school principal for 17, has the jocular energy of a coach in an inspirational sports movie. “Hey, Victor,” he called to Victor Pereira Jr., HTF’s master teacher of science, as he walked in. “Do you remember what it was like, when you and your wife brought home your first kid from the hospital?”

Pereira took up the theme. “They help you put the baby in a carseat, and you’re on your own.” His eyes widened. “You get home and



**Rebecca Park '16 said of the teaching fellows' first classroom experience, "It was difficult for a lot of us to feel like, why are we here? We're not saviors from Harvard trying to fix things." Opposite: Quan Le '15 guides a biology lesson.**



you're like, *now* what do I do?" The fellows were starting to put the classroom theory from their coursework into practice. "The pieces," he said, "aren't fitting together just yet."

### "The Ultimate Human Endeavor"

THOUGH the Harvard Teacher Fellows program's unofficial mantra was, "We are a start-up" (and, later, "*We have it covered*—kind of"), for senior lecturer Katherine Merseth, Ed.D. '82, "It has been a long labor of love."

Until recently, Harvard undergraduates interested in education had two main options. There's Teach For America (TFA), which runs its corps members through a five-week summer boot camp before the school year, and requires a two-year commitment. At peak popularity, it received applications from nearly 20 percent of the seniors. Though campus attitudes toward the organization have chilled—erupting in 2014 as protests at the College—TFA still recruits aggressively. Then there's the Undergraduate Teacher Education Program, founded by Merseth in 1985 to certify Harvard undergraduates as teachers. The co-curricular program draws a more committed, smaller crowd—some 20 students are enrolled at any given point, she reported—but many others balk at the prospect of piling fieldwork and coursework onto their existing commitments. "It's hard on kids' schedules," she said. "It's hard when you're the only one in your suite of roommates getting up at 7 A.M. to teach."

Merseth imagined a new pathway: longer, more gradual, and with much more support, instilling newcomers with the practices and mindset to make teaching a sustainable career. The fellows would start coursework at HGSE in their senior year, including discipline-specific training led by "master teachers in residence." (HTF drew their original three—Heller, Leibel, and Pereira—from the nonprofit Math for America, Brown's master's in teaching program, and HGSE's

**Members of the founding cohort of HTF outside the Harvard Graduate School of Education, where they took methods courses in their senior spring and throughout the summer**

own Teacher Education Program; all had taught at low-income urban high-schools.) College diploma in hand, the fellows would continue taking education courses while also teaching summer classes in the Boston area. In the fall, placed at high-needs schools in cities nationwide, they would teach a half load, spending the rest of their day on professional development—research, perhaps, or shadowing more experienced teachers. At night, they'd continue their Harvard schooling long-distance and also receive coaching from their HTF mentors. The following summer, they would return to Cambridge for a second round of student teaching and coursework to earn their teaching license, and, if desired, a master's degree.

HTF would offer up-front, on-the-ground training, without imposing the equivalent of a full-time job on students' schedules. It intended to ask more of its members—a four to seven-year commitment—without scaring off those undergraduates skittish about declaring themselves "career teachers." Though the cohort is wholly devoted to

the program's overall social aims, said Mahoney, "I don't think any of them see themselves doing *anything* for 'the rest of their lives.'" Some of the fellows admitted that the four-to-seven figure gave them pause. After being accepted to the program, several gathered in the dining hall to confer: "Is this something we want to do? Is it worth it for us?"

Merseth has called herself the godmother of HTF, but Mahoney went one further: "Kay Merseth is Gaia, as far as this program is concerned," he said. "The mother of us all." Fellows often cite her famously oversubscribed lecture course, "Dilemmas of Equity and Excellence in American K-12 Education," as what drew them to the field. She makes a point of inviting all her students to office hours, and maintains a stack of oversized index cards filled with her notes on their personal interests and backgrounds. "I want them all to come and talk to me," Merseth said. She has perfected her pitch: leaning in, looking students in the eye, and saying, in no uncertain terms, that they should consider a career in education. Not just policy, but teaching; not higher ed, but children. "If you love your subject matter, teaching is like eating ice cream," she said. "And it is *endless*. Teaching is the ultimate human endeavor."

Merseth's original proposal, drawn up in 2003, hovered in committee purgatory until the arrival in 2013 of the school's new dean, James E. Ryan, who raised \$14.5 million for the program's founding. HGSE unveiled HTF in the fall of 2014, including plans to enroll 40 students in the inaugural class. In the fall of 2015, the program received 28 applications, accepted 22, and wound up with 18 in its pioneering cohort. Still, Merseth holds steadfast to her vision: of a fellowship as coveted and prestigious as a Marshall

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or a Rhodes, its design adopted by other universities, and with 100 fellows in each graduating class at Harvard. In a recent interview, she asserted, matter-of-factly, “They’ll get there in two or three years.”

### “We Are A Work in Progress”

ON A TYPICAL DAY in HTF’s spring semester class, “Introduction to Learning and Teaching,” students entered their lime-green classroom in Longfellow Hall to the soundtrack of Disney’s *The Lion King* and started on a “Do Now” warm-up activity, like writing responses to passages from the previous night’s reading. Their professor offered little encouragements, odd if heard out of context: “Grammar and spelling don’t matter for this—ideas do,” or, “If you get stuck, go back and re-read your quote,” and again, more emphatically, “If you get stuck, go back and re-read your quote.” (Describing the atmosphere, one fellow said, “In the best way possible, I felt like I was in a high-school classroom again.”) A smartphone mounted on a tripod swiveled silently in the back of the room, recording the goings-on—a test run of the technology that might be used, next year, to observe the fellows remotely in their classrooms.

Meetings often served a dual purpose. First was the content: the tools and methodologies useful for their teaching practices. They learned about Bloom’s Taxonomy of cognitive processes (*understand, apply, analyze, evaluate, and create*) in order to devise thorough assessments; they read *Other People’s Children: Cultural Conflict in the Classroom* by Lisa Delpit, Ed.M. ’80, Ed.D. ’84, to mull over what it meant to be “social justice educators.” But the class’s format was its own object lesson. Halfway through, the fellows would be asked to reflect on the opening activity. “What did that get you?” the professor prompted. This left an opening for students who hadn’t done the homework to participate in the lesson, one fellow suggested. It had a low threshold for entry, someone else chimed in, but asked for high critical thinking.

Later in the semester, the fellows began training in their specific subject areas: math, science, English Language Arts, and history. One day in April, the history fellows pored over a text in which Hull House founder Jane Addams decried dance halls. First things first, said HTF director Eric Shed: what did the document say?

“It seems like she’s interested in, like, their bodies as this animalistic thing?” suggested one student. Shed, the unflappable former director of secondary history and social-studies education in Brown’s master’s program, didn’t blink: “How are you going to explain that to children?” he asked, not unkindly. Teaching seemed to ask that the fellows unlearn their collegiate instincts to skip several steps ahead to the next, knottier, insight. “It can definitely sort of...warp your expectations of what kids should be doing,” said Jesus Moran ’16, a government concentrator who would teach world history in Oakland in the coming year.

Alongside this formal training, the faculty stressed “cohort-building”—pure camaraderie—as an essential resource in the fellows’ first year of teaching. In the spring, Victor Pereira hosted a retreat for the program at his home in Foxborough; reminding the students not to be late, Mahoney ribbed them, “*Maybe* we’ll save some tofu eggplant hot dogs for you.” (But the fellows didn’t need too much encouragement; by March, a group text asking, “Why haven’t we seen each other drunk yet?” occasioned their first party.) During the summer, the cohort bunked together in the law school dormitories, and were offered stress relief and free food at weekly “family dinners” hosted at the Ed School. The program encouraged the fellows to find housing with one another in their new cities. (In the notoriously



expensive Bay Area, an anonymous donor’s largesse enabled five fellows to share a house in Berkeley.)

“We are going to be each other’s best friends,” Mahoney told the fellows. “Living together is going to be intense.”

**Sydney Jenkins ’16, shown here at Chelsea High School, was placed at a charter school in Brooklyn to teach eighth-grade English.**

### “It’s Hard to Feel Deficient in *Everything*.”

The numbers say that Chelsea High School, located six miles north of Harvard’s campus, serves 1,521 students. More than a third of those students are considered economically disadvantaged, and more than a quarter are “English Language Learners” (versus 5.6 percent statewide). Absenteeism is chronic. The Massachusetts education department reports that in recent years, the school has narrowed proficiency gaps somewhat, but not enough. Its gains in student achievement are higher than elsewhere in the district, but compared to the rest of the state, Chelsea High especially lags in math and science.

The school could also be described in other terms. Its hallways are sunny and clean, fellow Anthony Schiappa Pietra ’16 pointed out. Student work is displayed on the walls: posters detailing science experiments, summarizing some plot point in the *Aeneid*. Schiappa Pietra, a self-described “class clown” and “super space cadet,” attended well-off private schools in Miami’s suburbs growing up, but he’d learned to read the walls. These are signs of a classroom culture that tells kids their work is valued, he said, that lets them then contribute to their environment. You can tell when a school is cared for.

About a quarter of Chelsea’s students needed to make up classes to move to the next grade or graduate, according to Adam Goodstone, a director of its summer school. “We recruited really aggressively,” he says—visiting classrooms, sending letters to parents inside report cards, and phoning students’ homes. Some 250 students signed up for the 15-day classes, which were pass-fail and had a strict “three strikes” attendance and tardiness policy. The fellows largely ran classrooms in pairs, teaching one lesson each, while supervised by a mentor teacher from the school.

In the early days of summer school, faint anxiety thrummed in



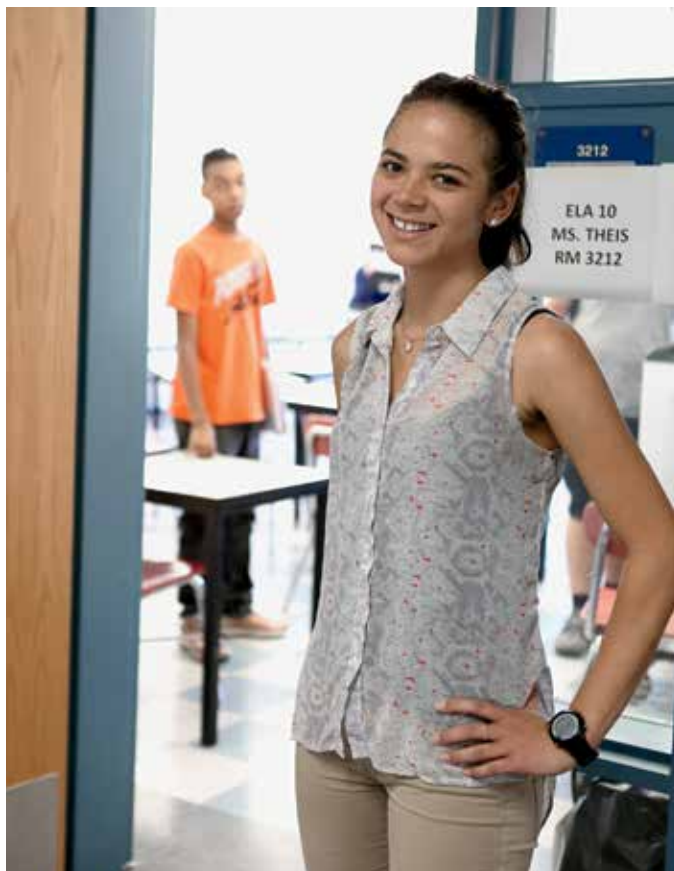
the background. The fellows' morale was determinedly high. Grace Kossia '16—a mechanical engineering concentrator from the Democratic Republic of Congo, by way of Texas—conducted a lesson on metrical units. Her system of class participation, drawing names randomly from a cup, was stymied by the fact that only four students had shown up: “He’s not here...she’s not here either...” One floor down, Jonathan Young '16—a rower who grew a mustache over the summer, perhaps to look older—was momentarily flummoxed by how to get his students started on researching historical photos with laptops. “It’s funny, the little things you don’t know at the beginning,” his mentor teacher, Sam Baker, commented with a smile. “How to break kids up into groups, how to clarify instructions without talking too much.”

Rebecca Park '16—raised in a family of teachers in Boston—came over to ask Baker, in a whisper, “Do you think it would be good or bad to put on music?” The energy in the classroom seemed low. After a pause, more diplomatic than contemplative, he answered, “I usually don’t.” When it was Park’s turn to lead class, she told the students to stand up. “Let’s have a seventh inning stretch! Whoo! I’m so excited to write about documents!” One kid, head on his desk, emitted a muffled moan: “Ohh, *shit*.” (Park said later that the

summer taught her that students would respond better to sunniness that’s cut with self-irony.)

Others had more openly rebellious classrooms. Kia Turner '16—who wrote her history and literature thesis on “Reclaiming the Power of the Black Narrative in Activist Achievements Against Harvard,” and speaks

**“I think when you let things slide in a classroom,” says Kia Turner '16, “it shows kids that you’re just like everybody else and you don’t even expect that they can behave.”**



in a crisp and authoritative rapid-fire—said of her students, “They were very tough at the beginning. It was really difficult for me because it was a lot of like—who the hell are you? Cursing at me in the classroom, cursing at each other when I first walked in.” Turner had pictured herself teaching young children in elementary or middle school, not young adults. “With sixth-graders, you can look at them from across the room and they’ll stop doing what they’re doing, or you can call them out and they’ll stop. But if you do that with a 20-year-old boy? Who is going through a ton of stuff in his life? You’re gonna start a *war* in the middle of the classroom.” Her no-excuses persona sometimes backfired: “I’ve really learned that you can’t get to that extreme, serious strictness until you have trust from kids. Once you do, they’ll listen to you. But if you just walk in like that—it doesn’t work in the way that it does for younger kids.”

Maya Park '16, partner-less at the head of her history class, struggled to draw her students into an activity about evaluating source material: a scenario where they had to act as school principals, using witness testimonies to decide which kid to suspend after a lunchroom food fight. As a high-schooler, Park had dreamed of performing on Broadway, and when her mentor teacher stepped in to finish the lesson, she looked like she’d been allowed to retreat off-stage, the muscles in her face and shoulders relaxing.

The mentor, entering her ninth year of teaching government, seized the room with the unsmiling decisiveness of a drill sergeant. “How big is the cafeteria?” A murmur. “It’s big, right? If you’re on the red side, can you see what’s going on in line? Well, that would affect what the witnesses could see. Now, imagine that Max’s dad worked at Market Basket [a nearby grocery store] and imagine that Justin’s dad was the new boss....” Her local details grounded the exercise in reality—and unlike the often coaxing style of greener educators, none of her sentences really ended in question marks.

“It’s hard to feel deficient in literally *everything*,” Park said later. “My mentor teacher keeps telling us to accept that we’re struggling—which we are! We accept it!” She sighed. “But we want to know how to get better.”

As they got deeper into their field experience, the fellows at times seemed visibly impatient with their own coursework, for which they returned to campus in the afternoons. Some of the units were helpful—the one on special education, for instance—but in general, their papers and projects seemed disconnected from their realities. They didn’t want theory; they wanted *moves*. At the last session of “Education Psychology,” in late July, professor of education Jon Star opened by asking for input about how to structure the remote coursework for the coming academic year. But the requests quickly spiraled:

“I want specific strategies we can use to help students with motivation.”

“Where does empathy enter the picture? Also, maybe we’ll get to this, where does—just super loosely—where does race enter this picture? I think there’s so much there and I don’t want to damage students.”

“I don’t know if this is your area—but, ways to remain sane throughout the year?” someone asked. One of her classmates added, “Ways to separate yourself from student pain, or student hurt?” “Like when a kid is doing narrative composition and telling us all the shit that’s happening to them,” a third specified. “Or just *students*,” the first fellow deadpanned.

“Is that in the domain of educational psychology class?” someone else asked, grinning.

Star suggested, tactfully, that their classes should be distinct from group therapy—“though it may be sorely needed,” he added. Eventually, the discussion swung back on-topic: how to instill a sense of autonomy, how important it was to make their students feel good at *something*. “If they think they can, they will. If they think they can’t, they might not, even if they can,” one fellow said. Another pointed out how an encouragement like, “It’s not as hard as you think,” could accidentally demoralize kids, make them feel stupid. “It is hard, miss,” one of her students had told her.

Since this class would not reconvene until the fall, Star left the fellows with some advice. Starting out, he’d adopted a “teacher persona” that he felt he had to put on and take off—a strenuous performance that had made him unhappy. But over time, those two sides of himself seemed to get closer. He was happiest as a teacher when he felt more like himself, Star said, and he was happiest in his outside life when he felt more like a teacher.

His Harvard students were not completely comforted. “Imagine becoming even *more* of a teacher?” one asked his peers, under his breath.

### “We’re Going To Have To Brute-Force It.”

IN THEIR OWN CLASSROOMS, the fellows grappled with how to adjust their expectations. Rebecca Park was unsure of how to assess the weaker students in her class: “Am I supposed to pass them? They worked hard and did all their work. They certainly demonstrated improvement. For sure, if we had a whole year, I think I could get them to proficient. What does it mean that I’m sending off students who sort of struggle to write paragraphs?” Kia Turner said that she realized, “As hard as I worked, 15 days is not enough to get students from writing sentences where they don’t have sub-



**Sarah Cole '16 addresses a student at eye-level, rather than stand above her—a gesture encouraged by the HTF faculty.**

before they pulled up to Chelsea High and had to assume the mantle of adult authority, sat shooting the breeze—swapping advice about birth control or anecdotes about sleep-away camp, sounding very young. Quan Le, speaking even more gently than usual, wrapped up a surprise phone call—

“You’re already there? All right. I’ll see you in 10, 15 minutes, okay?”—and, hanging up, explained that it was one of his students, “the one who’s failing really badly.” He’d come in early, before the 8:00 A.M. start of class, for extra help.

“Two more days!” said Evan Weiner ’15—tall, red-headed, unmistakably Californian—greeting the first student who ambled into his algebra classroom. Between sips from a jumbo iced latte, the student corrected him: “One more day.” “Today hasn’t even started yet!” Weiner responded, unruffled. “You’re only, what, two fingers into your coffee?” He turned to greet the next arrivals. “*Two more days!*” “One more day,” they replied.

The day’s class was on exponential functions, with a life lesson about the power of compound interest sneaked in at the end. But first, Weiner asked them to calculate the total price, with tax, of a pair of Steph Curry’s signature basketball shoes.

The “Do Now” exercise was simple, meant to build confidence from the jump. But nearly no one came up with the answer. “I kinda forgot how to do this,” one student volunteered. Before Weiner could respond, another observed, “You look kinda surprised.”

“Well—I thought this would be an easy warm-up for you, since we talked about your summer jobs the other day. But, if this is hard, that’s fine, let’s talk about it,” Weiner said. He seemed to come to a decision, clapping his hands. “All right then! Let’s do percents! What does *por cien* mean? Which Spanish speaker can tell me?”

A girl whose head had been cradled in her arms perked up to answer, “Of a hundred.”

“That’s right!” said Weiner. Her head went back down. He turned to the dry-erase board, muttering, “What’s the easiest way to do this... you can simplify the fraction. You probably know how to do that. You’ve been doing fractions since, probably, the third grade.” Then he changed his mind—they should use decimals instead. And calcula-

**“My mentor keeps telling us to accept that we’re struggling—which we are! We accept it! But we want to know how to get better.”**

ject-verb agreement and capitalization to “writing with a clear and consistent style”—the standard suggested by the summer school.

Even so, going into the penultimate day of school, the fellows had a lot they wanted—needed—to get done so their students could pass. In his writing workshop, Anthony Schiappa Pietra had a small group who, for one reason or another, had fallen behind on their final project. An incomplete would, in effect, cancel out an entire month’s worth of work. He suspected that they’d do just about anything to avoid having to share their stories with the class. “We’re at DEFCON five,” he said. “It’s *delicate*.”

Yet the bus ride from campus went as usual on July 28. People brought coffee for each other; there were stragglers, hair still damp from their morning showers. They counted off—everyone present—and left late. Some reviewed their lesson plans: an ELA fellow, who was teaching Emma Donoghue’s novel *Room*, asked aloud, “What’s the Spanish word for *civil*?” Others, in this scant half-hour



tors. After those were distributed, he set the example of a \$10 tube of toothpaste—“That’s an expensive toothpaste, but so it goes”—which had a 10 percent sales tax on top of it. “Tax should only be a couple of dollars, a couple of cents. Tax should not be as much as the price. We’re not—importing caviar,” Weiner explained. “That’s always a good check: does this make sense with what I know about the world?”

The pop-culture caricature of a difficult class is noisy, disruptive, all tough talk and spitballs. What gets less play is the long, suffocating siege against a silence that can mean anything—inattention, indifference, sullenness, confusion. Weiner set up a series of problems for the students to work through, and when he was satisfied that they had a handle on percentages, they turned back to the originally planned activity: writing values down in a pre-printed table to track the escalating cost of a car loan, left unpaid month to month. Circling the room, he handed out little blue paper tickets (“shout-outs”) to whoever he saw “on-task”—eventually, all of them. Unprompted, a bespectacled student looked up to inform him, “This class actually helped. I didn’t think I would get any better than before. But it’s easier.”

“Thanks. I appreciate it,” Weiner replied. He’d hoped to complete that table by 9 A.M.; they were still working on it by the time the bell rang at 10:30. Weiner raised his voice above their exiting clatter to call, “Be careful with loans! Pay off all your debts! See you last day of summer school.”

Pens stuck through her long plait, Gianina Yumul ’16 sprang into action before the next group entered. Weiner’s class had been her prep period, and while working in the back of the room, she saw the trouble

**Grace Kossia ’16 led a physics class at Chelsea in preparation for teaching the subject in the Bronx this fall.**

he had and quickly drew up a new worksheet on percentages. She cut a different figure at the front of the room: self-contained, less quick to quip. (“Emotionally level,” her mentors had told her.) Like Weiner, Yumul habitually narrated every action: “I’m going to turn off this projector.”



“This calculator is giving me a hard time.” (The fellows had been taught the value of “giving windows into” why they asked their students to do things, she explained later.) But she also paused to tell the class, “This is summer school, and it is my job to help you understand this. Not only is it my job, but I really *want* to be here.”

When she sensed they were totally stuck on the car-loan activity, she switched to a different exercise. A boy has a penny, a nickel, a dime, and a quarter in his pocket: how many different sums of money could he make with them? The object of the exercise was twofold: to model a problem-solving strategy, and help students visualize exponential growth by organizing the sums into a kind of tree.

“Can someone name a sum for me?” Yumul asked, drawing a table to display their answers on their board. She got only a couple of volunteers, so she began cold-calling: “Not participating is not an option.”

**“I think they’re over-achievers,” said one principal. “The first year of teaching has rattled so many people.”**

Everyone seemed disengaged (though one student, his curly hair squashed under a Bruins cap, took to the problem so well he asked if there were more like it on the Internet). But the cause of the disconnect was mysterious: did the students not follow the reasoning, or were they uninterested in where it led—since, at the end of the day, this hypothetical kid still had only 41 cents in his pocket.

After class, a couple of especially determined students returned for extra help. In a corner, one conferred with Weiner over a worksheet. Weiner’s Spanish, halting at first, warmed up quickly. “*No tiene la misma variable*,” he explained, in a murmur. “*No se puede combinarlas*.” (“You don’t have the same variable—you can’t combine them.”) Meanwhile, Yumul flipped through a make-up quiz while a skinny boy in a sky-blue shirt stood by, shifting nervously from foot to foot. After entering the grade into an online system, she looked up from the screen with a grin. “You’re passing!” she told him, adding, “You did so much work today.” Relief flooded his face. He asked if he could see for himself, saying, “I thought I was going to pass by, like, 61 or something!”

Sitting at the back of the classroom and taking copious notes was the fellows’ Chelsea mentor, Wesley Peacock. When they were alone in the room, Peacock—a business analyst before he’d joined Teach For America—turned to Weiner and Yumul. “What do we think, team?”

“About the day?” asked Weiner.

“About the holding pattern I was in for *an hour and a half*?” Yumul emitted a classic *Peanuts* cartoon groan: “Aughhhh!”

In Peacock’s sympathetic assessment, “There was a lot of teeth-pulling today. We worked too hard today.” More experienced teachers, he explained, use less direct instruction in their lessons. Instead, they structure the hour around individual and group activities, checking in with students individually to coach them through tricky bits. “Otherwise,” he said, “it’s hard to build relationships.”

For their last day, he suggested they come up with a project for the kids to work on during class. “Do we feel happy about not doing direct instruction?”

“Somewhere between happy and overjoyed,” Yumul answered.

"I want to emphasize that this does not let you off the hook for planning," Peacock warned. The best advice he'd ever been given, he said, was to never appear to work harder than your kids *in class*. All the work happened at home, preparing resources that would guide the process.

They came up with a problem set that ran the gamut of the summer's math skills, from simplifying algebraic expressions to distinguishing between linear and exponential relationships. What about kids who just didn't know anything, who struggled with the most basic concepts? Weiner asked. "We're going to have to brute-force it," Peacock replied.

The team drafted a battle plan on the whiteboard, planning the flow of exercises so they built on one another, with periodic "stop and checks" where a teacher would review students' work before they proceeded. "Imagine you're a student who knows *nothing*," Peacock instructed them. "Can you pick this packet up and get all the way to the end?"

They also needed to set a new tone for the class—rearranging the tables, putting on music. "It'll be important to keep up momentum, going in," Peacock said. And the students should be paired off strategically—friendly, but not so friendly that they became distracted; people with different strengths. If the pairs had "mixed abilities," Weiner and Yumul should ask the weaker students how they'd arrived at the answer. Even if they couldn't do all the math independently, if they at least went through each step and could explain the flow of thought, concluded Peacock, "That's not nothing."

"I felt *hot* during that percentage lesson!" Weiner said, as they exited Chelsea for the day. "Like—*bam*, here's a whole lesson out of my sleeve! Check out my adaptive practice!"—the profession's term of art for thinking on your feet—"Then..." A sigh. "The next hour and a half happened."

### "This Is Gonna Work"

EARLIER, IN MARCH, Stephen Mahoney had stood at the podium during a conference at which the Harvard fellows would be matched with their schools. What the HGSE faculty so often told the fellows, he also relayed to the administrators looking to hire them: "We're a work in progress. We'll be a *hot mess* in progress, no doubt, for three, four, years." But no one, he added, would have a bigger impact on what the program could become. "This is a moment you're going to look back on and say, 'I was here at the start of this thing.'"

The school leaders seemed prepared. "It's almost hard to describe all the things that make the first year of teaching difficult," David Krulwich, the principal of the Urban Assembly School of Applied Math and Science, in the Bronx, said during a recent phone call. He ticked off a few: lesson-planning takes far longer, and when those best-laid plans go awry, first-years are more startled, and—seeing an opening—the class misbehaves even more. Over time, though, "When a kid is doing something nutty, you say, 'Okay, I've seen this before.'"

The principals also suspected that the Harvard teachers might over-work themselves. In the spring, Shawn Benjamin, Ed.M. '05, said that the four fellows she had hired for Leadership Public School-Richmond, in California, were already asking if they could take on Advanced Placement classes or extra-curriculars. "It makes me won-



**Jing Qiu '16**  
surveys her  
math classroom  
at Chelsea.

der if they're not aware of what the challenges are. I think they're overachievers," she said over the phone, with a small laugh. Recalling her interviews with them, she said, "I think I probed pretty hard, with these guys, about their ability to overcome challenges. I think that might be hard for them because they have been so successful, and the first year of teaching has rattled so many people." Straight-A students might be used to pulling all-nighters and writing a great paper, or cramming for a midterm—but "Teaching doesn't work that way. There is a learning curve," she said. "How do they see feedback, and how do they see failure, and how do they respond?"

A month later, the fellows took field trips to visit the schools where they'd been placed. During the subsequent class session, they were told to write thank-you cards: one to someone—a colleague, a future mentor, a student—who had made the trip special; the second, said Mahoney, to themselves. "Everyone had a moment when you looked at yourself and said, 'Yep, this is gonna work.' I want you to write a note that says, 'Hey, remember that moment?'"

Round-robin, they shared what they had written. That moment was the school guidance counselor, tearing up over the photos of college-bound students. It was meeting a bunch of juniors actively excited that there'd be math beyond pre-calculus next year. It was gossiping with a bunch of girls in the cafeteria, already feeling liked and trusted. It was sitting with the other fellows on the train to New York City, and feeling at home. It was seeing a principal watch a fellow's sample lesson, eagle-eyed, then crack a smile.

By summer's end, the fellows thought that their teaching experiences, from the Madison Park lab to Chelsea's summer school, had gotten progressively easier, more structured. Another way to look at it, of course, was that they had grown more experienced, more competent. However high their aspirations about the kinds of educators they would be—loved, respected, effective, just—their self-assessments were modestly tamped-down. "We're not starting at zero," said Moran. They were nervous—"The first day of school is always terrifying," Yumul said—but excited. They would get to start fresh in a classroom. They would get to know their students for 180 days, not 15, not five. They could make some real progress. This, they said to themselves, is gonna work. ▢

Associate editor Sophia Nguyen wrote about educational technology in the March-April 2015 issue.