The below is the third chapter of Jal Mehta and Sarah Fine, *In Search of Deeper Learning: The Quest to Remake the American High School.* The book is forthcoming from Harvard University Press. Please do not circulate further without permission of the authors. Comments and correspondence welcome at jal_mehta@gse.harvard.edu.

Chapter Three:
"No Excuses" and Deeper Learning: Building Block or Oxymoron?

To some, "No Excuses" schools are the antithesis of deeper learning. The images that these schools evoke—students working under regimes of tight discipline and control, completing teacher-directed tasks organized toward mastery of traditional academic goals—are not what comes to mind when one thinks about 21st-century skills or student-centered learning.

However, as we have seen, student-centered learning is not necessarily deeper learning; conversely, there may be other paths to deeper learning. Our colleague David Cohen, who has written extensively on different modes of instruction, argued to us early in the project that progressive education was not the only route to deeper learning. What about the East Asian school systems that lead the PISA, he pointed out, like those in Shanghai, Singapore, and Korea? Their students seem to learn things, complicated things, but those schools are not cast in a Deweyian mode.

In our initial tour of schools, we went to visit a No Excuses school, which we call "No Excuses" High, which suggested that there might be more to some of these schools than behavioral control. Consider this history class:

Students, all of whom appear to be Black or Latino, are given the following prompt:

> "From the 1790s to the 1870s, state and national government intervened in the America economy mainly to aid private economic interests and promote economic growth. Between 1890 and 1929 government intervention was designed primarily to curb and regulate private economic activity in the public interest." Assess the validity of this statement, discussing for each of these periods at least two major areas of public economic policy.

Students are then directed to make a graphic organizer, with the columns reflecting the two periods, and the rows reflecting categories like people, government and economic activities. Students are told to quickly fill in their grids with events that they know from history (they are given 6 minutes) and then to discuss their findings with a partner. Meanwhile, the teacher, Ms. Franken, is writing her own organizer on a transparency, which looks like this:

	1790s	*1830s*	*1930s*
Promotion of private interests			
Promotion of public interests			

Then, as the students move their attention back to Ms. Franken, she is gradually filling in this organizer, asking them a series of questions as she does so. "Why would we push for trust busting?" "Do we agree that trust busting is entirely about promoting the public good?" "What do you think about the 1920s period?" Students respond: "The 1920s were a period that emphasized laissez-faire economics." Ms. Franken: "Can you be more specific?" Answer: "Less of a focus on the public interest and more on promoting the private economy." Ms. Franken: "What was their intention, what was the economic policy they were following in the 1920s and 1980s?" Student two: "Trickle-down economics. You start at the top

and it trickles down." Ms. Franken: "Who is 'you'? What do you mean 'you' start at the top?" Student two: "Through taxes, lowering taxes, especially on the rich." Ms. Franken: "What's the opposite of that system, starting with the New Deal and FDR?" Student three: "Pump priming." Ms. Franken: "What does that mean?" Student three: "Heavy intervention. It's when you put lots of money into social programs." Ms. Franken: "So it's infusing money into the bottom of the social hierarchy?" Student four: "If you add more taxes, wouldn't it hurt businesses? And wouldn't that affect the regular people?"

This was not the best history class we ever saw. Time was short; students did not examine primary documents; the teacher was leading much of the discussion. But the task was analytically complex, and the students, all of whom were high-poverty Black and Latino students from a severely depressed city, had the requisite background knowledge to engage in a real discussion of economics. Compared to many suburban classrooms we visited, where students were woefully ignorant of basic facts—and the absence of such knowledge precluded significant analysis and interpretation—this substantive discussion was impressive. Even more impressive was that, as we visited different classes – in biology, English, Spanish, and other subjects – we saw similar patterns: tasks which required analysis, and students who were up to the challenge. Further, as we learned certain statistics about the school—78 percent of students receiving free or reduced-price lunch: scores on state tests, SAT IIs, APs, and even the PISA that outpaced their suburban counterparts; 100 percent of graduates accepted to four-year colleges—we became even more intrigued.

At the same time, we had real reservations about the model. If, as we discuss elsewhere in the book, "deeper learning" comes about when students' intrinsic interests are sparked, when students have large blocks of time to take on open-ended tasks, when students' identities (including their racial identities) are embraced, and when students have some agency and choice over the direction of their learning, then much of the no excuses model is fundamentally antithetical to that vision of deeper learning. Intriguingly, during the time we spent at the school, the leaders of the school were beginning to reach similar conclusions – they, too, saw limits to what could be accomplished through intense behavioral control, particularly as they were finding that having gotten their students to college, those same students were frequently struggling with the open-ended nature of higher education. During our research, school leaders were trying to retool significant parts of their model, while at the same time not losing the strengths that had enabled them to achieve what they had.

All of this raised some significant questions. First, how had No Excuses High managed to consistently produce such classrooms and results, particularly given that they were working with almost exclusively high-poverty students and young teachers? Second, what were the strengths of this pedagogical model when it came to deeper learning? What were the weaknesses? Third, what were the tradeoffs inherent in this vision of learning and social organization for both students and adults—what were the costs of control? And fourth, could the school find a way to retain its strengths while addressing its weaknesses? "No Excuses" and Deeper Learning – building block or oxymoron?

No Excuses Schools: Origins and Prospects

Originating in 1994 with the founding of KIPP Houston, "No Excuses" schools have become increasingly central to the public debate around urban education reform. Including well-known charter networks like

KIPP, Achievement First, and Uncommon Schools, these schools differ in their particulars but share a common set of precepts: strict discipline, which involves penalties for small infractions such as dress code violations; high academic expectations, organized around state standardized tests and college preparatory exams; and strong norms of classroom control, including, famously, the requirement that students actively track speakers with their eyes in an effort to avoid distractions. More broadly, these schools seek to wall off what happens in the largely high-poverty communities they serve from what happens inside the schools themselves, minimizing external "excuses" for why students might not achieve at levels comparable to their more advantaged peers.

The school networks are also heavily shaped both by the policy context surrounding them and by the core beliefs which organize their work. As organizations founded on the goal of closing achievement gaps, they need to demonstrate measurable progress on state tests and other external exams. This goal was reinforced by the No Child Left Behind Act, which made scores on state tests the critical marker for school quality. They have also been influenced by behaviorist models of instruction and social organization: incentives and consequences figure prominently for both students and staff, particularly towards the goal of mastering pre-specified objectives.[1] Much of the school's behavioral approach to discipline is inherited from "broken windows" policing, which argues that permitting small infractions creates a gateway to more significant rule-breaking; thus the insistence on absolute behavioral compliance.[2] While the ends are arguably "liberal" (promoting social mobility for poor children), the philosophy of means is deeply conservative, in that discipline, order, and compliance to adult authority are seen as the key to success.[3]

"No Excuses" schools have been the subject of considerable political and academic debate. For proponents, they represent an admirable effort to close achievement gaps and to put poor and largely minority students on the path to a middle-class life. Many of the schools send most or all of their graduates to four-year colleges, and lottery-based studies which compare graduates of "No Excuses" charters with applicants who were lotteried out have found the former group to have significant test score benefits.[4] For these reasons, "No Excuses" schools have grown in number and in visibility over the years, becoming a significant part of broader school reform strategies in cities such as New Orleans, Washington, and New York, among others.[5]

At the same time, critics have raised a number of objections to the model. They argue that the forms of behavioral control employed at "No Excuses" schools reinforce longstanding patterns of class bias: poor students are expected to comply with elaborate rules, mirroring the norms of factories and service work, whereas upper middle class students are given opportunities to self-direct and collaborate, echoing the values of skilled workplaces.[6] Critics also point to recent studies which indicate that many of the students who graduate from "No Excuses" schools start college but do not graduate, suggesting that high levels of control and prescriptiveness do not necessarily serve students well in their post-secondary and adult lives.[7] Finally, many are also troubled by the racial dynamics of these schools, which they see as imposing a new form of colonialism in which a largely white teaching force actively removes students from their communities and forces them to accept a new and "better" set of values.[8]

Despite the importance of this debate, there is a startling paucity of scholarly research which explores what happens inside "No Excuses" schools. Journalistic accounts such as Jay Mathews' *Work Hard; Be Nice* and David Whitman's *Sweating the Small Stuff* describe some of the core practices which characterize

such schools, but they do not explore how these practices are experienced by faculty and students. A book from 2008 by Katherine Merseth and colleagues, together with recent dissertations by Joanne Golann and Seneca Rosenberg, represent the only serious scholarly accounts of these schools.[9] Finally, because many of the original "No Excuses" schools were middle schools, we know very little about what happens inside "No Excuses" high schools. There is also no research that looks carefully at the content of instruction against the criteria of "deeper learning," nor is there work that examines how such schools are striving to revise or change their models. For all of these reasons, we thought there was much to be learned from an examination of No Excuses High.

No Excuses High: A Case Study

We selected No Excuses High as a research site by asking leaders from a range of "No Excuses" networks which school we should study if we were looking for a high school committed not only to behavioral control but also to developing rigorous instruction. A wide array of these respondents agreed that No Excuses High was the most promising example. As such, No Excuses High should be seen as a best case for what the "No Excuses" model has achieved instructionally at the high school level. For the sake of context, we did visit several other "No Excuses" schools; in addition, Fine conducted a year's dissertation research in one of these. Based on these experiences, we share the impression that No Excuses High is particularly developed in the systems it has in place to guide instruction.

A few other contextual features of No Excuses High are important for understanding it. Its students are 82 percent African-American and 15 percent Latino; as stated earlier, 78 percent receive free or reduced-price lunch, and 76 percent would be the first in their families to attend college. The school is small, with roughly 500 students across the four grades. As a charter school, it has the ability to hire and fire teachers at will, to set its own curriculum, and to use its budget as it sees fit. Another important feature of No Excuses High is that it is attached to a grades 5-8 middle school that is part of the same network. This means that students, by the time they enter 9th grade, are already accustomed to the philosophy and routines of school, and that they enter with stronger basic skills than they would have if they had attended local district-run middle schools. Finally, No Excuses High is located in a deeply depressed urban area located half an hour from a major city. This location means that there are a relatively large number of young teachers seeking work, but that, given the proximity of advantaged suburbs, it is challenging to hire experienced teachers.

No Excuses High performs extremely well by conventional performance metrics. The school has outpaced not only demographically similar schools but also much wealthier schools on the state tests in math and reading. More than 50% of No Excuses High test-takers have passed AP tests in AP Biology, AP Calculus, AP Computer Science, AP English Language, AP U.S. History or AP World History. 100 percent of its graduating seniors are accepted to college, and 90 percent enroll in a four-year college. At the time that we collected data, No Excuses High's tenth-grade students had recently taken the PISA test; this cohort outpaced the averages of all but nine other countries in reading, and its scores paralleled American wealthy suburbs in math. Thus, as a school that is seeking to close gaps in knowledge of conventional academic content for its students, No Excuses High seems to have succeeded across a variety of metrics.[10]

At the same time, like many similar schools, No Excuses High has significant trouble retaining its students. The school does not publish and would not provide us with figures about its retention rates, but one senior estimated that she had started with 50 students in her 5th grade class and that only about half remained at the school in 12th grade.[11] Lending credence to this story of attrition was the fact that class sizes for seniors are frequently much smaller than classes for ninth graders. Conversations with students suggested that the most common reason students leave is that they can't or won't put up with the heavy workload and/or the regimen of strict behavioral control; these students seek traditional high schools where it is much easier to progress across the grades. We do not have any way of judging how many students left voluntarily as opposed to being "pushed" or "counseled" out by the school administration.[12]

How to read these figures is a matter of perspective. Critics would argue that if a school system has a 50 percent retention rate, it is hard to call it a successful school. Proponents would say that No Excuses High is a school of choice, and that if it works well for half or more of its kids, then those students are getting a better education than they would have received otherwise. They might add that even if only half of high-poverty fifth graders graduate from the school and go to college, that figure is much higher than it might be for a similar sample of fifth graders who did not have the opportunity to attend. They might also point out that students who leave the school likely graduate from other high schools potentially more academically prepared as the result of their time at No Excuses High. Either way, it is clear that No Excuses High benefits from the fact that everyone who is at the school has signed on to its vision and values. Even in a setting where 78 percent of the students receive free or reduced-price lunch, these clearly are not a cross-section of high poverty students; rather, these are students whose parents have signed them up and who have chosen to stay.

As with other schools in the book, our goal in researching the school was to construct a case study grounded in rich ethnographic data. To that end, we conducted in-depth interviews with virtually all of the school's teachers and administrators; we also ran several focus groups with students. Because it was a small school, we were able to observe almost every class in the school at least once. In total, we spent 130 hours observing, and interviewed 50 people. This methodology does not allow us to determine the degree to which the school was "causing" the student outcomes described above. What it does allow us to do, given the evidence that shows the contribution of "No Excuses" schools to test score outcomes, is to explore the mechanisms through which these effects are achieved. Case studies are also particularly well-suited to the kind of organizational questions we explore in this chapter, as they enable us to identify the key elements of the approach at No Excuses High, as well as to consider the interlocking forces which promote both stability and change.

The Diagnosis: Peter Dewitt and the Systems Engineering Approach to Schooling

Everything at No Excuses High flows from the vision of its founder and principal, Peter Dewitt. Mr. Dewitt is tall, wiry, with angular features, and pristinely slicked back black hair. He is also always impeccably dressed. Mr. Dewitt has what one might think of as a "systems engineer" view of schooling. He has an almost visceral distaste for disorder of any kind; as one teacher told us: "It really sets the tone when Peter picks up even the smallest pieces of trash around the building."

Mr. Dewitt graduated from a top Ivy League university in 1991 with a determination to create social change, particularly for high poverty and minority students. His undergraduate degree was in government, but he quickly decided that law, politics and government were not the ways to create the most meaningful social change. Placing his bet on education, Mr. Dewitt taught in Washington, D.C. for three years and then obtained a master's degree from Harvard's Graduate School of Education. After graduating, he went to work at the Francis Parker School, a suburban charter school which was founded by legendary progressive educators Ted and Nancy Sizer. The school featured a number of the core aspects of progressive schooling, such as involving students in collective decision-making and using gateway portfolios, as opposed to conventional exams, to mark passage from one "division" to the next.

Mr. Dewitt's experiences at Parker were formative to his perspectives as educator, but not in the way that the Sizers intended. As Mr. Dewitt perceived it, the school had "let its culture happen by happenstance," and as a result, this culture had turned "toxic"—students frequently were disrespectful and rude. More troubling still was that the general looseness of the school's structures seemed to be exacerbating inequalities. "The low-income students and the students with special needs really did not [get what they needed], even with two teachers in every classroom, which was the model…. [The leaders thought] we don't need any structures; we'll design it democratically." For Mr. Dewitt, the takeaway lesson was that even an enormously talented and thoughtful group of teachers and leaders could not make up for the absence of systems and structures.

It was with this perspective in mind that Mr. Dewitt joined the network of charter schools where he now works. He started by teaching for seven years at the network's flagship middle school. Although this campus was run by a leader whom Mr. Dewitt deeply respected, over time he began to perceive echoes of the same problems that he had experienced at Parker:

> [The school leader's] charisma led him in the initial years to believe that he could hire just really good teachers and kind of let them go and things would be okay… And what ended up happening, without a lot of systems in place, was that people would do really good work for a little while and then they would leave or there would be inconsistencies within the school, and then over time, like four or five years in, it seemed like we were back where we started again with brand new faculty struggling.

When Mr. Dewitt had the opportunity to open a companion middle school, and later a high school, he was determined not to replicate these mistakes. He knew himself well enough to know that charisma was not his strong suit; instead, he relied heavily on his commitment to detail and his orientation toward systems engineering, making these the linchpins of his work. Embracing what Weber calls "bureaucratic authority," Mr. Dewitt developed an approach to school leadership which was heavily focused on creating systems for controlling and guiding teacher and student work. "I had learned that . . . if you left it to chance, you could get really non-optimum results that were unchangeable," he reflected.

Systems are also essential for equity, in Mr. Dewitt's view. Unplanned variation among teachers will lead to variation in what students know and are able to do, which in turn will compromise the goal of creating better life opportunities for all students. Thus, the most important role an equity-oriented school leader

can play is to minimize random variation and maximize consistency of experience across classrooms. “My greatest fear is randomness,” Mr. Dewitt reflects.

The result of Mr. Dewitt’s work, perhaps unsurprisingly, is the most developed set of systems that we have ever seen in a school. As we will detail in the coming pages, there are systems for everything at No Excuses High. For teachers, there is a centrally developed curriculum, templates for how lessons should be taught, weekly observation and feedback sessions which follow a prescribed form, weekly submission of lesson plans for feedback and approval, and video-documentation of everything for the purposes of learning and improvement. Students operate in a similarly systematized environment, in which they need to pass in homework to baskets at the beginning of the day (to prevent them from working on it during classes), and, within classes, experience an extensive use of countdown timers to maximize time on task. All of this is backward mapped to support mastery of the goals laid out by the AP or SAT II tests.

Mr. Dewitt’s personality, as well as his goals and values, shapes the culture of the school. One prominent feature of this personality—and thus of No Excuses High as a whole—is its relentless emphasis on improvement. As Mr. Dewitt describes a conversation with a new teacher, let’s call her Ms. Cristo: “At one point Ms. Cristo asked me in December, because she was part of this instructional leadership [process], ‘When will this end?’ And our response was -- because she thought it was going to end after winter break. Like, ‘Does this stop?’ And we said, ‘Never. It never ends. It is endless.’” The structures described above work in part because of the sheer determination with which they are applied; sewn into the fabric of No Excuses High is the narrative that it will take grueling work on everyone’s part to close gaps in achievement.

Also central to the school’s culture is a highly transactional approach to relationships, both among faculty members and between faculty and students. Mr. Dewitt acknowledges that at his middle school he consistently scored low on metrics such as “how much does this person know about you.” He did not see this limitation, however, as getting in the way of creating a successful work environment. Teachers report that this belief serves as a model for how they organize relationships at No Excuses High. As one reflected:

> I find a lot of teachers a lot of times care too much about being liked, and that's something that Peter has never really cared about, not why he does what he does. And I think I take my cue from him as far as that goes. I want to be liked of course by people, but that's never going to be something that drives my interactions with students or anything like that. It's inappropriate, it's not what we're supposed to be about as educators.

This approach is also compatible with the broader “No Excuses” philosophy, because the school, like many among its ranks, takes the position that its primary responsibility is to equip its students with knowledge and skills; to “kill students with kindness” would be to neglect this responsibility and thus to disrespect their potential.

In sum, No Excuses High represents a fairly extreme reaction to the perceived dangers of progressive schooling and untrammeled teacher autonomy. Deeply rooted in an equity-oriented mission, it seeks to achieve its values through extensively designed systems of hierarchical control that leaders hope will create upward mobility. The culture of the school is similarly instrumental in its approach; relationships

are viewed as a means to creating better outcomes, but also as potential interference with the school's mission. Much of what follows, for good or ill, flows from these orienting assumptions.

Inside No Excuses High's Classrooms

Depending on the perspective of the observer, what happens inside of No Excuses High's classrooms can be viewed either as highly conventional high school fare or as a radical experiment in remaking the contemporary high school.

The work is conventional in that the content, and the tasks that guide the teaching of it, will be extremely familiar to anyone who has graduated from an American high school: analyzing *Julius Caesar*, exploring the impact of World War II, identifying equations that describe the trajectory of physical objects. These are the topics that American high school students have studied for generations; they are a deeply established part of the school canon.

What is distinctive is that these topics are superimposed onto a commitment that *all* students, particularly students from extremely impoverished backgrounds, will engage to the point of demonstrating mastery. If, as the authors of *The Shopping Mall High School* describe, contemporary American high schools are places where a tacit bargain exists between 'teachers who pretend to teach' and 'students who pretend to learn,'[13] the maxim at No Excuses High is the opposite: students will learn (whether they want to or not), and teachers will teach (whether they want to or not).

To achieve that result, No Excuses High's classrooms are long on four elements: intense behavioral control, which is used to maximize time on task; careful scaffolding, by which complex topics are broken into component parts and students are deliberately guided through them; frequent checks for understanding to see where students are in their learning; and backward mapping from SAT II and AP tests to ensure that content aligns with the expectations for college study. In contrast to traditional classrooms, where teachers talk for long periods of time while students listen passively, what we saw at No Excuses High was an extensive amount of *practice*—e.g., students working individually or in pairs to demonstrate their understandings of particular facts, concepts, and ideas. It is hardly an overstatement to say that students were exercising their brains virtually all of the time; No Excuses High had taken to heart the cognitive scientists' injunction that it is the person who is doing the mental work who is doing the learning. Many of the school's metaphors came from sports and the arts, in which guided practice, including detailed feedback on the smallest errors of form or technique, is central to the approach to learning.

Challenging Tasks, Carefully Scaffolded, With Student as Producer

It is a sunny morning in late May and Mr. Moriarty's tenth-grade English class is about to begin. Mr. Moriarty, a slim young white man who is just finishing his first year of teaching, stands at the door of his classroom greeting students as they enter. All of his students are dressed in the school uniform—khakis, collared shirts tucked into belts—and all appear to be Black or Latino. Mr. Moriarty shakes their hands firmly and prompts them to sit down and get going, which they do without ceremony or side-conversations. The class starts with a 7-minute "do now" task: an SAT-style vocabulary multiple-choice worksheet. When the students have completed it, they copy down their homework into their planners. Their homework

involves reading the next chapters of Ann Petry's novel The Street, which is currently the focus of the class's shared work. In addition, they have to produce a rough draft of an essay.

Mr. Moriarty goes over the day's objectives, and then asks a student volunteer to lead a review of the new vocabulary list. The student asks, "What part of speech is ____?" and "What other forms of the word do we know?" and other students raise their hands to answer. Then he gets to sentences that use the word, and when a student gives a simple sentence, Mr. Moriarty says "We need something that highlights – show us the meaning of the word." The words themselves are SAT words: "specious," "constituent," "negligible," "arrogant."

After this review is over, sixteen minutes into the period, the class moves on to discussing the chapter of The Street *which they read last night. The students first spend three minutes completing a "reading check," a brief multiple-choice quiz that asks questions like, "What does Min decide to do about her miserable life with Jones?" and "What can the reader conclude is the profession of a pushcart man?" When the quiz is over, Mr. Moriarty transitions into a discussion about the novel. He highlights the question that the class needs to answer today: "For what is the sky symbolic?" He explains that the group will read, then discuss, and then write a full literary response to the question. Afterwards, he prompts a volunteer to read out loud from the novel. At some point he takes over the reading "because you'll want to write during this part." About half of the 21 students appear to be taking notes while he reads.*

Mr. Moriarty pauses and asks the students to take two minutes to write down thoughts about the discussion question, then two more to discuss their responses with a partner. When I walk around during the writing, most kids are copying down relevant quotations and a few are also writing sentences about what the symbolism might be. Afterward, during the pair-share, I listen to one group as they have a brief discussion about whether the sky might symbolize fate.

The class moves on to whole-group discussion. The students offer up a variety of interpretations, sometimes responding directly to each other and sometimes to Mr. Moriarty when he adds to or questions their ideas. They often use sentence-starters which allow them to directly connect to or build off each other's thinking. "I thought the sky was symbolic of the street and how everything on the street affects people," one student begins. Mr. Moriarty lets this student talk for a minute but then questions whether the street changes the same way the sky does. Another student offers: "I think Petry provides the symbolism of the skies to represent the loss of hope," evidencing this idea with a specific quote. In total, five students share their ideas, and there are about five other students with raised hands.

Mr. Moriarty asks another question: "If you were an author, why would you use the sky to represent the change in a person…. Why would it be a fitting representation for a gaining or a loss of hope?" After a pause, he adds: "There's no right or wrong answer here." Mr. Moriarty cold-calls a student who hasn't spoken yet. She begins to answer but then falters; another student offers: "In general, the sky and the weather portray how people feel, so she probably used the sky to symbolize the struggle in man's life in general." This discussion continues for about ten minutes, until the bell rings.

This excerpt illustrates many of the key elements which characterize the No Excuses High approach to instruction. The time was heavily divided—there were no fewer than nine distinct activity segments during the 65-minute period. With the exception of the whole-group discussion at the end of the period, for each piece of the class there was a tangible deliverable (written or oral) which each student was accountable for producing. The tasks themselves involved a mixture of basic questions around vocabulary and text comprehension and higher-order questions which asked students to identify symbols and themes. There were also questions which asked students to "think like a writer" by analyzing the reasoning behind the author's choices—a key part of engaging in the disciplinary thinking associated with English Language Arts. Virtually all of these tasks were backwardly mapped from external assessments: the vocabulary exercises are intended to prepare students for the SAT and the literary analysis questions mirror those which students will face on the English SAT II or AP English in several years.

From a deeper learning perspective, there are different ways of interpreting this lesson. A positive interpretation of this class would note that the questions the students grappled with in the second part of the class were difficult and meaningful questions, consistent with the kinds of questions that might be asked in an AP English class at an affluent school or in a college literature seminar. Students offered full-sentence thoughts as responses to these questions, and they made an effort to build on each others' ideas. Time on task was very high, and students often were shouldering the cognitive load. Finally, it is worth remembering that Mr. Moriarty was a first-year teacher—a point to which we will return below.

Conversely, critics would note that there was no essential question to help connect and lend meaning to the diverse elements. Students practiced vocabulary because they needed vocabulary for the SAT; there was no effort to incorporate the skill-building into a more meaningful arc. Only the second half of the class pushed students beyond the retrieval and comprehension stage. And, as we observed in our notes at the time, the short time for discussion compromised the energy in the classroom.

<u>No Excuses High at Its Best: Factual Command Builds to Analysis and Interpretation</u>

At their best, classrooms at No Excuses High were places where students engaged in deep disciplinary thinking, leveraging their considerable knowledge to tackle complex questions which required analysis and interpretation. For example, consider an 11th grade English class taught by Mr. Gregory, a short energetic man in his 30s:

Mr. Gregory is wearing slacks and a zip-up sweatshirt that says, "The Messenger," which is the school's newspaper. Mr. Gregory was a journalist before he became a teacher. When I enter the classroom, there are thirteen students sitting in a semicircle. After an SAT-style grammar review sheet, they turn to the main task of the day.

Mr. Gregory asks the students to open to a featured debate in the newspaper, which is under the "He said, She said" column on the op-ed page. The heading is, "What should the role of a just person be in an unjust society?" and there are two students, Jaime and Hannah, whose ideas are featured. He gives the students 7 minutes to write independently on a T-chart their summaries of what the two arguments are, then says that the students will be working in their "dream teams" to come up with their own answers to this

question, which they will then debate in a hands-down discussion. He emphasizes that students "Should use the stories you've read this year to make your case…. It's not an easily answerable question, at least not for me. I can see both sides, and I want to see if you can use what we've read this year to synthesize your ideas and see both sides too."

One of the girls in the trio closest to me starts, "I think that she's basically trying to say that if a government doesn't respect its people, then the people have the right to go against the government." Another girl talks about 1984, saying that "Winston – in a way he could support Jaime. Because didn't he try to kill the firefighter?--and that's violence…." Then she adds that in Fahrenheit 451 "He [the protagonist] silently revolted against his government."

Then another girl talks about To Kill a Mockingbird: "Scout's father was going against society, but the way he was doing it was by going against the rules… and in Huckleberry Finn *he moves away from society and he does violence, and in the end you see there is a change." A girl disagrees: "You're saying it as if Jim killed everybody but I don't think that book connects to Jaime's article." Mr. Gregory is sitting next to them at this point and he says, "This is good – this is an argument I want you to have. You don't have to agree." He throws out an idea about Atticus, and the girls start arguing against him, saying that Atticus Finch and Henry David Thoreau aren't opposite.*

The timer goes off and the kids move back to their other seats. Mr. Gregory says that he will take notes on the board, and that "I'm looking at your broad ability to connect all of these different books to a broader theme – in part because that's what you will have to do in college, especially if you take English classes."

"Jaime thought that you had to make change by breaking unjust laws. Hannah took a more subtle approach – in order to make change you have to work within society," volunteers one group.

"An example my group used was from Huck Finn – he basically left and tried to get away from his society, which shows that violence is not always needed. I thought that his non-violent ways and his ability to leave shows that you don't always need to break the law or be violent to make a change."

"But I have a question: so what change did that bring to society?"

"I was talking about Huck himself."

After a little more discussion of Huck Finn, Mr. Gregory asks the kids to refer to other books that they have read this year.

"I was going to refer to 1984…. At first he does try to work with the system, and he does little things like developing relationships with the girl, and he's trying to slowly go against the system, but ultimately you could argue that the reason he wasn't successful was because he wasn't willing to fight for the cause."

Mr. Gregory asks, "If I forced you to pick, what would you pick?" and the girl makes a wry face, and then says that she thinks 1984 supports the violent side.

Mr. Gregory responds, "I understand your point, Rachel, but I have a different notion. . . . I want to know why everybody keeps connecting dystopia to fighting for change."

"I think that Hannah's form of rebellion is a less extreme case – Jamie isn't saying that you need to be violent, but that you shouldn't go along working within the rules. If you really want change, then you need

to fight for what you believe in. In 1984, the way he tried to rebel was too subtle, and so the society stifled his form of rebellion."

"I agree that the point of fighting and being rebellious has to be appropriate – you can't fight for petty things. I think racism is something that you need to rebel for, because it was basically started through violence. If something – like a bad principle or system--was implemented though violence, then you shouldn't use a passive way to fight it, because not much would be done."

"I think you're vilifying these characters who are trying to adjust to society…. Like in the instance with Winston, when he finally did start rebelling, he got tortured. You're making him seem like a hypocrite when really he's just trying to survive and live the good life – and that connects to our essential questions…."

After a few more comments, Mr. Gregory stops the discussion and asks the students to write their exit ticket, which asks them to "take a stand" on the issue now that they have discussed it. The students hunch silently over their papers and write until time expires.

This session provides an example of No Excuses High at its best. The students are taking on a vital philosophical question—what is the role of a just person in an unjust society? Drawing on examples from a variety of classic texts, they are considering how under different scenarios it may or may not be justifiable to use violence against an oppressive regime. They consider different social change strategies and weigh the question of when, and under what circumstances, individuals have collective responsibility to act for justice. Students are speaking in full sentences and accurately describing the books they have studied. Small groups and individual exit tickets are used to make sure that every student participates. To the degree that tasks of synthesis are meant to build on retrieval and comprehension, this task is a meta-level task that asks students to take what they've learned about particular texts and apply it in the context of a more general question.

A related example comes from Mr. Cunningham's eleventh grade biology class:

As the twenty juniors enter the room, Mr. Cunningham greets them and prompts them to sit down and start reading the materials that will guide their seminar discussion today: a case study about an unusual variety of fish. "I want you to be pulling out important vocabulary words as you go," he says. The case study is in the form of a large packet, which includes an introduction to macroevolution, a "problem" section which describes how the three-spine stickleback fish has interesting variations in body armor, and a section with questions that students will be discussing. As the students read and annotate silently, Mr. Cunningham circulates and quietly affirms what he sees.

After five minutes, Mr. Cunningham draws the class together. He asks the students to articulate the central problem of the task. One student says, "Why morphological changes happen over time." Mr. Cunningham then asks the class to generate a list of vocabulary they can use that will "bring the discussion to the next level." Students volunteer a range of words and terms: natural selection, morphological, mutations, punctuated equilibrium, allopatric speciation. When Mr. Cunningham cold-calls a student and asks him to define the last term, the student responds without hesitation, "When species that are related develop different characteristics because they are in different environments."

The students who have been assigned to participate in the first inner-circle discussion move their desks into the center of the room and Mr. Cunningham starts the timer. The group has 5 minutes to tackle the packet's first question, which is whether the fish's traits are inherited. What experiment could the group design to test this question? After a short moment of silence, the students begin discussing the question earnestly and thoughtfully. As observers, we are struck that they know how to respond to each other, to disagree respectfully and substantively, to invite each other in, to ask questions of the others when confused.

> *"One way we could test it is to breed the different populations of stickleback fish – use two fish from each population and cross the marine with the marine and the freshwater with the freshwater and you'd see which traits appear in the young."*

> *"I agree with you, but I thought that when you cross these fish you should cross the marines with the freshwater, because if it's like reversible then if that's the case, then the marine fish's babies would be sterile."*

> *"I wasn't sure you could even test this because yesterday we talked about how you can't eliminate an alleale from a population because of carriers."*

> *"So it never actually stated whether or not the spines were coded for in the population, so you're assuming that it is inherited and it was lost in the freshwater population?"*

> *"I have a question: [student name], you were talking about how the alleales could be lost as the result of the environment, but we don't even know if the alleale was inherited. Do we all agree that the alleale was inherited?"*

Mr. Cunningham moves the group on to the next part of the case, which describes what the scientists did to design an experiment—it turns out to be similar to what the first student suggested–and lists the results in the form of a chart. For two minutes, the students have a discussion in which they clarify how to read the data listed on the chart:

> *"The diagram is showing that if you cross a marine and a freshwater you get C… [refers to the diagram]."*

> *"What is C showing?"*

> *"C is the offspring from crossing A and B."*

> *"It has a partial spine."*

> *"So based on that maybe it's like incomplete dominance?"*

"I kind of disagree. I thought if you look at the ratios, it looks a lot like 9/3 or 3/1, which is the standard ratio for heterozygote cross. So I guess you can conclude that spines and body armor are linked genes."

"I wouldn't totally agree with that because of E and F – mostly E. Even though the fish only has partial body armor, you wouldn't – if they were linked, they would have to be shown together."

"Can somebody tell me what we just concluded? Did we come to a consensus? Like, what was [student name] saying? I understand the traits that the F2 generation had, but what does that mean?"

"I don't know if we really answered the question."

"I agree, because I thought di-hybrid crosses were different."

"The question is asking what you can conclude about the alleales, and we think it's a di-hybrid cross."

The group decides to move on to the next substantive question, which describes the results of the test and asks the kids to diagram what happened in this breeding test. One of the participants gets up to the board and starts drawing a chart with genes, but before he gets very far the timer is up. Mr. Cunningham asks them to summarize their ideas while the outside participants get ready to share feedback. Their comments suggest that they were following the process as well as the content of the conversation:

"Whoever talked in the circle used a lot of vocab, and they used a lot of evidence from the case study itself. One criticism is that you guys never really decided what your conclusion was and what everyone thought, and if you agreed with [student name] nobody explained why."

"I agree. In the first part you included more vocabulary and evidence. But the fact that some people were going back against what [student name] was saying – that was good too."

"I like that [student name] looked at the ratios – I didn't initially think of looking at that but that helped me think about incomplete dominance."

"I think that the use of questions was good, because it clarified – they didn't just move on when they were confused. But I didn't really understand what they were saying."

Mr. Cunningham jumps in. "There were lots of opinions, but there was a lot of hard, stone-firm evidence to support your claim – you got there at the end, but it took awhile to get there," he says. He affirms the student who asked the group to summarize the ideas that they had named, and then he asks the groups to switch so that the outsiders are now on the inside. A similar discussion to the one described above ensues, though with different questions this time—questions which progress from where the first group left off. The homework is on the last page of the handout. It asks students to cite three specific pieces of evidence from the seminar and define five key terms to answer the question: "Why have some freshwater populations of the three-spine stickleback fish lost their pelvic spines and body armor?"

This excerpt illustrates No Excuses High at its best, this time in the sciences. Here students draw on their preexisting schema and skills to make sense of what happens in a new scenario—explaining the evolution of the stickleback fish. The task asked students to think about how biological reasoning works – students needed, in Jerome Bruner's words, to understand the underlying structure of the disciplinary knowledge in order to answer this question.[14] The students expressed no self-consciousness in using academic knowledge, and their conversation built on each others' points. They worked within established norms of how to conduct this kind of academic discussion, and they were given an opportunity to critique their performance and reasoning. The lesson concluded with homework that built on the seminar and provided individual accountability for processing what was developed as a group. Insofar as stereotypes about "no excuses" schools emphasize that students move in lockstep on fairly trivial tasks—e.g., chanting multiplication tables—what was happening in this biology class shows what can happen when the disciplined accumulation of factual knowledge is used to tackle a significant analytic task.

No Excuses High At Its Worst: Breadth Over Depth, Certainty Over Exploration, Control Over Passion

However, not all classrooms at No Excuses High were as analytical as Mr. Cunningham's biology class. In classrooms which were not as strong, we identified a tendency towards breadth over depth, certainty over exploration, and control over passion. In some ways these problems mirror the challenges of American high schools as a whole; in other ways, however, they reflect the particular limitations of the No Excuses High model.

Consider the following 9th grade math class:

Ms. Kilroy is a petite white woman in her late 20s or early 30s with dark blond hair pulled back in a ponytail. She's dressed in a no-frills kind of way in a tee-shirt and long skirt, and her manner matches her appearance: when I introduce myself, she is neither warm nor off-putting. On the door of her classroom there are lists of students who scored above a 90% on the most recent interim exam, ranked in order. Inside, one of the walls has a "student seminar wall of fame" with a number of accolades for students who have been nominated as the stars of "move it along" and "wrap it up" and "best evidence."

The students, freshmen who are in the higher math track, start with a "do-now" which asks them to write the correct formula for some exponent problems. Ms. Kilroy hurries them through it and then prompts them to get out their binders and open to yesterday's exit ticket, which she has graded with checks. She hands out an answer key and gives the kids two minutes to write corrections on their problems. The girl next to me uses a red pen to copy down some of the work that is on the answer key. After the timer goes off, the students have two minutes to talk with each other about their answers. "I only got two right," says one girl to her group. Ms. Kilroy comes over and one of the kids says to her, "I don't understand why you did it this way." Ms. Kilroy explains it to her, although we can't hear what she is saying.

The students take out their notebooks, and Ms. Kilroy thanks them for their professionalism. She notes that today was a "perfect homework day." She launches into the lesson, which is on a power point. She

says, "We're going to learn about two kinds of rules: recursive and explicit sequence rules." She has the kids repeat the word "recursive" out loud multiple times. She then projects a table of values, saying that the task is to write the rule relating the x value to the y value. "y=2x+3," says the girl next to me within 1 second. When Ms. Kilroy asks how many got this, almost everyone raises their hands. One girl explains that the "shortcut" is to look at the y value when x is zero to get the intercept. Ms. Kilroy affirms this and says that this task is about writing explicit rules, which they can already do. "Now we're going to go over recursive rules," she says, and walks them through a different way of generating the equation, involving looking only at y compared to itself in the previous and next entries….

After a bit more direct instruction, Ms. Kilroy gives the students two minutes to try out one of these new problems with their groups. The students next to me talk about what to plug in where and do some calculations on paper. Next, the students silently do a similar problem on their own, which Ms. Kilroy then goes over with them. The format is much the same: students supply the answers; Ms. Kilroy clarifies and asks for some help along the way. She warns them that "the problem is that sometimes when people learn how to write recursive rules they forget how to write explicit rules – so I'm going to have you write both each time for now."

This class offers a classic example of No Excuses High's guided practice lesson template: individual warm-up to connect from yesterday; direct instruction that includes some opportunities for participation; time to practice in groups. Math experts would likely classify this lesson as focusing on procedures and algorithmic application rather than on conceptual understanding.[15] Students have learned some rules for how to identify algebraic equations from sets of data points, but they are not being asked to understand the underlying reasons why those rules work. If one thinks back to the now-famous contrast between American and Japanese math lessons, in which the Japanese approach features one difficult problem that students need to work together to solve, and the American features teaching a formula and then trying that formula across a range of examples, this lesson fits squarely into the American mode.[16]

What happened in this and other similar classes, we believe, was less a reflection of anything distinctive about No Excuses High and more a reflection of the broader milieu that shapes American instruction. As was true at many other schools we visited, there was an emphasis on procedural and algorithmic knowledge in math, and an emphasis on coverage over depth in science. Sometimes, as discussed above, teachers were able to use building blocks to ask harder and more meaningful questions, as in the "just person in an unjust society" example in English and the stickleback fish lab in biology. But there were also times when the press for coverage and, in particular, the orientation towards what would be measured on the SAT IIs and the AP tests mitigated against deeper exploration.

The pace of classes also worked against qualities inherent in a certain vision of deep learning. If deeper learning emerges when students are given extended time to grapple with hard problems, to work and iterate solutions, and to do sustained work on meaningful products, there was not much learning of that sort at No Excuses High. In particular, the heavily scaffolded nature of the work, the desire to split it into small chunks in order to keep students on task, and the desire to frequently check for understanding mitigated directly against longer, more open-ended, and more uncertain explorations. We asked a

number of students if they had done a piece of work that they were proud of; many could not name a single assignment.

Relatedly, the emphasis on extrinsic over intrinsic motivation had an impact on the classes we observed. While students were almost always "on task," rarely did classes have high levels of energy, and rarely did we observe students volunteering ideas or questions that went beyond what was asked of them. We could count on one hand the instances where a genuine discussion or debate broke out that was not a direct response to the assigned task. If learning at its best takes on characteristics of "flow," of being "in task" rather than "on task," or of simply being genuinely intrinsically motivated, we saw few examples of that at No Excuses High.

Consider, for example, a drama class we saw at No Excuses High. We wanted to explore what happened in elective spaces and the arts, because at other schools these were frequently arenas where authentic and impassioned work was happening.

When I enter, there are 20 students sitting in chairs in a large circle. The room feels oddly clean and empty; the walls are barren aside from a few simple masks on one wall and a few printed generic posters. Ms. Lopaz, a young Latina woman wearing a dress and very high heels, is pacing around talking and asking questions. After a couple of minutes, she transitions and hands out a worksheet. "We're going to work on learning how to do staged readings today," she says. She asks the students to take out their scripts. The class is silent. "Let me define for you what a staged reading is," Ms. Lopaz says, and reads out the definition, which the kids write down: "The opportunity for a playwright to workshop their play while it is in development."

Ms. Lopaz asks what a staged reading wouldn't have that a full production would have. The students answer: lighting, sound, costume. "I would have that in my notes," Ms. Lopaz says, as she repeats what they have said. The kids write. Ms. Lopaz then prompts them to flip to the front of the sheet and says that they are going to listen to a podcast and then answer the questions on the sheet: "What are the advantages of a staged reading?" "Name the physical and vocal skills you've been working on that will help you with a staged reading." The kids write notes as directed during the 5-minute podcast; all but 3 are actively writing. When the podcast is over, the kids have 3 minutes to write answers to the questions. Afterward, Ms. Lopaz asks them to talk about what they wrote. A few students volunteer:

> *"I would do a staged reading because there might be things I want to change, and the actors might evoke something that I want to add."*
>
> *"With a whole production you can't necessarily focus on the dialogue – you'd be paying attention to the lighting and design."*
>
> *"The person is still working, they're not finished, so a full production then they would have to make a book of your script."*

The students are not responding directly to each other, and in almost each instance Ms. Lopaz responds to each comment with a comment of equal or longer length. Students are using theater vocabulary: they use terms like emphasis, voice projection, articulation, and body language. The conversation goes on through the other questions. At some point Ms. Lopaz alludes to the staged reading "lunch series" that they will do soon.

We can see in this class some of the tradeoffs of the No Excuses High approach. The students are again acquiring fairly sophisticated discipline-specific vocabulary in thinking about the nature of staged readings. But they do so devoid of context, unlinked to the staged reading of an actual play that they will be doing later in the year. In the absence of this animating purpose, students are following directions and dutifully learning the content, but the energy that is usually associated with putting on, preparing, or even thinking about a production for a real audience was absent.

Summing Up: Classrooms at No Excuses High

On balance, the amount of thinking required at No Excuses High was much more than one would see in most contemporary high schools. History classes asked students to analyze historical cartoons and to research the impact of *Roe v. Wade*; physics classes asked them to explore Newton's laws on the basis of data they had collected on a trip to a local amusement park; English classes featured discussions of *Recitaf* and *The Great Gatsby;* Spanish classes asked students to conduct individual interviews with the teacher to demonstrate their proficiency in the language; and math classes asked students to develop a proof of the formula for the surface area of a sphere. The role of external assessments loomed large. Some portions of classes were given over to tested basic skill elements, and teachers, particularly in math, science, and history, worried that the external assessments were pushing them to trade off depth for breadth, with imperatives of coverage limiting deeper explorations. Even so, on the whole, in 20 of the 25 classes we observed, at least some portion of the class was devoted to engaging students in higher-order thinking tasks which would be classified in the top half of Bloom's taxonomy—and most students actually could do these tasks.

At the same time, we saw only rare instances of genuine energy and engagement. The work was framed almost exclusively in terms of preparation for college or external assessments rather than as something of intrinsic interest or purpose; thus, students experienced academic work as something with which to comply rather than with which to engage. Finally, the constant scaffolding and frequent assessment meant that students were acquiring a range of knowledge, skills, and content, but also that they had few experiences directing their learning or conducting sustained academic investigations.

The Big Picture: Organizational Design and Coherence at No Excuses High

How does No Excuses High create these classrooms, which, if lacking in certain critical respects, were at least consistently asking high-poverty students to think about real subjects? We identify a number of dimensions that were critical in generating this consistency: the creation of a *specific* and *granular* instructional vision; an *infrastructure* of curriculum which supported teachers' work; the *extensive mechanisms of feedback for adult learning*; the *ferocity of the culture* that supported this work; and the *alignment* of all systems, structures, and incentives towards these ends.

It all began with the unambiguous nature of the vision. As we have described above, Mr. Dewitt's vision was that students would succeed on external benchmarks like state tests, SAT IIs, and APs … or else. Most schools we visited were what scholars have long described as loosely coupled systems, where the difficulty of monitoring teachers and the absence of a clear consensus on good practice meant that each teacher could, more or less, decide what his goals were and how to achieve them. No Excuses High was the opposite–crystal clear about goals, and equally unambiguous that teachers would work within a hierarchical system which would show them exactly how they were expected to achieve them.

This granular vision of what was expected from teachers was supported by a set of aligned structures and systems. At No Excuses High, the traditional subjects—math, science, English, and history—comprise the core part of each student's diet. Faculty are organized into departments, and the department chair is responsible for closely overseeing the work that his or her teachers undertake. A critical structural decision that Mr. Dewitt made when starting the school was to position these departmental chairs as key instructional leaders; they teach only two classes and use the rest of their time to observe and give feedback to newer teachers in their departments. "Even with my educational background, I was not going to be able to guide and lead and help make decisions [in every subject]," Mr. Dewitt says. "And so we decided if we really want alignment of the teachers and really want them to be developing, then we needed to do this department chair thing very aggressively."

One of the main responsibilities of department chairs is to develop curriculum, which the school sees as a key vehicle for making sure that classrooms are adequately rigorous and coherent across teachers. Accordingly, in each subject and grade level, an extremely detailed curriculum is created by the department chair and other experienced teachers, and is vetted and honed through use with actual students. As Mr. Dewitt says, "Once a curriculum is finished, it's pdf-ed. It's done…. We are happy with it." The development of such a curriculum aims to be what Seneca Rosenberg, in her study of Achievement First, calls a "safeguard": it seeks to ensure that what happens in a particular classroom matches the goals of the organization.[17]

In addition to developing curriculum, department chairs are expected to oversee the learning of teachers in their areas. New teachers go through several days of summer training run by the instructional team at the network level, where they are introduced to the school's basic pedagogical approach and the set of strategies they are expected to use in the months and years to come. This induction experience is followed by weekly cycles of feedback. In a typical week, a novice teacher is observed by the department chair on Monday, debriefs that observation on Tuesday, and meets on Wednesday or Thursday to discuss lesson plans for the following week, drawing in part on feedback from the past week. Then on Sundays, all teachers who are not department chairs are required to send in the week's lesson plans by 2 p.m. to the department chair; they receive their plans back with comments and notes by 8 p.m. As Mr. Dewitt says, "We tell our teachers that the lesson plan has to be perfect.'" In addition, new instructors and department chairs often are assigned to the same room, which means that new teachers grade papers and prepare lessons at a desk in the back of the room while more experienced teachers in their subject areas are teaching, and, conversely, department chairs have informal opportunities to observe the novices in their charge.

The nature of this feedback process is also carefully structured and internally studied by the school. Feedback sessions are themselves videotaped and reviewed for ways to increase the efficacy of the feedback. When multi-faceted problems are identified, they are broken into smaller parts so they can be worked on gradually. The sum total of these various processes means that teachers receive roughly 25 – 30 rounds of observation and feedback over the course of the year from experienced mentors who teach same-age students in the same subjects. The first and second year teachers who were part of this process almost uniformly described it as incredibly valuable. As Mr. Moriarty describes it, "Other schools of thought think that teaching is this thing that happens by osmosis…. We feel that you don't have time to waste and you can get better fast. Teaching isn't magic – at least not most of it. The way we do that is by codifying good teaching."

All of these features were part of what attracts teachers to the school. Teachers who had taught for a year or two in other schools really noticed the differences. One teacher who had taught for two years in rural North Carolina through Teach for America described the support at No Excuses High as one of the reasons for applying:

> Because of the professional development. My top goal was I wanted to become a good teacher. I felt like in my two years I was constantly failing. I didn't feel like I had developed… despite how hard I worked. And so, I was looking for a school that would help me achieve my potential. And so, when I heard about the development model here for teachers, [it] was way more ambitious than what other schools were promoting.

Inside the Containers: Selecting New Teachers

If one aspect of what is distinctive at No Excuses High is that its systems are remarkably organizationally coherent, another concerns what happens inside these containers. The adults in the school, particularly the leadership, have strong standards for what constitutes rigorous learning, and it is the continual application of those standards that enables it to enact its vision. Here we focus on the nature of the school's teacher development processes, focusing first on how teachers are selected and then on how they are coached.

Consider an interview with Mr. Henry, a prospective 11th grade history teacher. As is common at some private schools but rare in public school settings, all new teachers at No Excuses High have to teach a demonstration lesson. The lesson was observed by Mr. Allington, the history department chair, as well as by Mr. Dewitt.

Mr. Henry's lesson is divided into four parts, all focused on building understandings of the political and social dynamics of Reconstruction America. In the first part, the "do now," he asked students to imagine that the 9th and 10th graders tried to secede from the school and were unsuccessful. After getting some initial answers to this question, he moved to a factual set of questions about the period surrounding the Civil War and Reconstruction. Students could answer some of these factual questions and not others; Henry asked them to look up what they did not know in their textbook. In the third part of the lesson, Henry asked students to describe what they knew about Lincoln's and Johnson's Reconstruction plans and then to draw a Venn diagram with one circle for each man's plan.

After Mr. Henry finished, he, Mr. Allington, and Mr. Dewitt sit in the empty classroom for a lengthy debrief.

Mr. Dewitt: How did you think it went?

Mr. Henry: I was a little disappointed – didn't reach the thesis part, which came at the 40-minute mark. We didn't get to the comparison – the assessment was going to be a 4-minute essay when they were going to write up each of Lincoln's and Johnson's plans and compare them.

Mr. Allington: Why didn't you get to that point? If you could do it again, what would you do?

Mr. Henry: I would cut out the part about working with the categories without direction. Would have just gone straight from the brainstorm to the categories, rather than them making the categories. Also the direct instruction questions went on a little long. Maybe I could have cut off some of the student discussion and made it shorter.

Mr. Allington: While we're on that topic of questioning with students – what were you listening for in student responses?

Mr. Henry: I wanted students to pull out the big questions – the superior question was going to be what do we do about freed slaves, punishing the south, and state/federal – those would have been the best answers. And they did get them.

Mr. Allington: "What do we do with the slaves," one of the students said? That indicates some significant misunderstanding. That would have been a place for you to correct it or to let her correct it.

Mr. Henry: That's a good point – I wanted to hear something about slaves, so maybe I jumped on that too fast – you are right I should have corrected it.

Mr. Dewitt: When you asked them central questions facing the nation at Reconstruction – it seemed big, but it didn't seem linked to part I. What was the payoff, why do that?

Mr. Henry: First the strips – then I wanted them to generate that knowledge without thinking about the categories. If we had talked about these big questions, they would have understood that these categories are related to the overall questions. Does that make sense?

Mr. Dewitt: It makes sense if you get to the end product. But otherwise it feels like you are setting up the track and field and then not having the event.

Mr. Allington: From the students' perspective, the question was what are we doing and where are we headed?

Mr. Dewitt: Let's go back to Mr. Allington's question, knowing what we know now, if the goal is to get this big payoff in learning, and the ratio to be heavily on them. What I observed was a lot of moving the furniture around, and a lot of time to move things around, but not much payoff. So, if you were going to do it again, how would you do it differently?

Mr. Henry: I'm trying to bring Johnson and Lincoln into the lesson. These are pieces of the two men's plans – and then we are going to try to determine which goes into which category.

Mr. Dewitt: They would ascertain that?

Mr. Henry: Yes, important for them to understand that Lincoln pro freedmen's bureau.

Mr. Allington: So that prior knowledge is important for the conclusion. They know nothing about Johnson; we haven't gotten to that yet. So if they know nothing, and you know they know nothing – how are you going to get to that point?

Mr. Henry: Fill in what you know about Lincoln. Then I'd lecture about Johnson.

Mr. Allington: So perhaps they needed a short secondary reading.

Mr. Dewitt: All I heard about Johnson was that he was a Southern slaveholder. And their knowledge about Lincoln is disparate. So the lesson itself is…

Mr. Allington: Superficial.

Mr. Dewitt: Which dooms the lesson to a level of superficiality. It needs to be seeded in something – in other schools we see lots of students just moving information around. What we've learned is that our students are capable of going deep, but it is entirely dependent on the circumstances we create.

Mr. Allington: Trying to get to higher levels of interpretation, but they didn't get there. Moving information around.

In this excerpt, we see a number of aspects of what is distinctive about the No Excuses High approach. There is considerable attention to detail, as each part of the lesson is carefully probed and examined. There is no "hamburger" feedback (praise – critique – praise), but rather a deconstruction of what went wrong and forceful questioning about how to fix it. And there are real standards – watching what students know and can do, and trying to figure out how to help them get beyond the superficial and to the broader questions at stake.

Mr. Dewitt concludes the demonstration lesson with a final message to Mr. Henry about what it would look like to work at No Excuses High:

> Here, with the department chairs, we don't describe it as a mentoring program, which is why also the coach label in education circles, coach seemed to us too weak a term. We need our teachers to understand very clearly and I also need them not to either accidentally misunderstand or willfully misunderstand the relationship…. Mr. A is notorious for… finding himself in this situation, where the teacher doesn't understand that he is the decision maker.
>
> And so, I will have both of them [together] and I will say to the teacher, "You seem to misunderstand your relationship with Mr. Allington as your department chair…." [He is] giving you instructions that we expect everybody's going to follow…. That's not a suggestion.

Here we see the approach to hiring in a nutshell. Hiring is less about expertise than about malleability; they are looking for good young people who are eager to improve, open to feedback, and willing to learn the No Excuses High way.

Inside the Containers: The Nature of Instructional Development

The school is confident that their young charges can be molded into good teachers through the instructional development process they undergo. We had a chance to observe some instructional sessions with practicing teachers, as well as to talk to both the department chair and the teacher who was being "developed." In one such pairing, between Mr. Allington, the history department chair, and a second-year history teacher, Mr. Cole, both described the ways in which the lessons shifted over the course of the year. They described three stages. Early in the year, they focused on what Mr. Allington called the "smallest lever we could fix." He started with how students should be organized as they entered the classroom:

> Here's a really good example: when students were coming into the classroom at the beginning of each class, there was often a lot of murmuring and side conversation of students who are slow to start that "do now" and get ready. And he couldn't figure out exactly how or why or what the problem was, and he was frustrated by it too. And the feedback I gave him was as simple as when they come in, you're not speaking, you're not intervening and working with students one-on-one yet. All you're doing for the first minute when they come in is you're standing in front of the room and observing them and just watching to see that everyone is sitting down, that they're silent, that the transition looks the way it wants -- the way that you want it to.

From there, the next step was to focus on the instructional templates. Here, after trying a number of different strategies, Mr. Allington eventually decided that Mr. Cole was being overwhelmed with feedback in too many directions, and decided to narrow the focus to just repeating one instructional template. Part of the idea here was to reduce the cognitive load by focusing feedback on only one dimension. Mr. Cole describes what happened:

> I know I struggled at first. I know I was identified as one of the weakest teachers in school about a month in, particularly among the new teachers. Mr. Allington spent every day planning with me and re-planning. We spent like probably a good hour and a half every day redoing the next day's lesson based upon that day's challenges and successes.
>
> And then we realized by the month end that the students hadn't really -- I wouldn't say hadn't learned anything, but they'd learned very little. They hadn't actually remembered much, they weren't able to recall anything in order to make some kind of statement. And so Mr. Allington identified that and tried to really simplify what I did in my class. So, I had the same structure in class every day, even if it was monotonous. We needed to make sure that the students were learning something.
>
> So, we made what's called a standard history lesson. They were going to read for about 15 minutes, they're going to look at a document, and then they're going to answer some bigger question. And they're going to do that every day until you were able to get that done, and then we'll add more onto it. And so, although it may have been boring for students, it allowed me to focus on management, allowed me to focus on understanding the curriculum better, and so just really get control of the question and to make sure the students had been learning the basic facts

about the earliest civilizations, for example, and then that way they could draw upon it once I had improved as a teacher.

By the end of the year, with Mr. Cole having gotten familiar with the standard history template, they were creating more variety in the lessons, and he was becoming more of a co-planner. As Mr. Allington describes it,

> Now we are at the point in the year where the feedback I give in the discussions we have . . . [isn't] about getting students to come in and sit quietly and start the work. Now it's about, okay, 'What's the big idea? How can we -- what's the best essential question to get at this idea? What's the best way we can organize this unit?' Now it's really content, it's about the actual content, it's about the actual curriculum, how we can improve it, how we can enrich it. So, the discussions have moved to a place that's a lot more intellectually stimulating for both of us, I think. And I think he feels pretty good about that at this point.

You can see in their description of their trajectory a number of elements that are characteristic of the No Excuses High approach, and which parallel the school's vision of how students learn. The first is a view of how expertise develops, familiar from sports and the arts, which emphasizes working from part to whole: breaking down a large task into smaller elements. A second and related point which derives from a similar ethos is the importance of repetition and practice: the idea is that Mr. Cole would improve more by doing the same thing again and again than by cycling through different things. A third relates to comfort with hierarchy based on expertise; as emphasized above, Mr. Allington is clearly directing the operation and Mr. Cole is the novice. Finally, Mr. Allington seems to see no conflict between this view and a more expansive view of teaching—for example, the ultimate emphasis on organizing around essential questions; however, he treats the latter as something which develops slowly once one has mastered more basic parts of teaching.

A second instructional development interchange, between Mr. Tobbs, the English Department Chair and Mr. Moriarty, the novice teacher described earlier, reveals a related set of dynamics. Mr. Tobbs's view of coaching strikes a balance between the need for systems and the need for teacher's individuality. He says that the risk of schools like No Excuses High is that teachers, particularly new teachers, think that they are supposed to be robots in a machine, whereas teaching requires some personal ownership to connect with kids. He says that Mr. Moriarty, for example, had a very "flat affect" initially, which was modeled on how Mr. Dewitt talks. But, Mr. Tobbs notes, Mr. Dewitt "when he's teaching, isn't like that all the time. He does weird things. He makes jokes or whatever. You can't be in a room with people, especially kids for hours every day and be robotic." The challenge, then, is that teachers need to make the techniques work for them; to think otherwise, he adds, can be "a grave potential error in these kinds of 'no excuses' schools."

Consistent with this philosophy, Mr. Tobbs gave Mr. Moriarty extensive feedback, but also gave him some space to shape what he was learning. As Mr. Moriarty describes it:

> [Mr. Tobbs] has been very flexible in the sense of, yeah, this was my curriculum last year, but [you need to make your own decisions]. So the next year, I'm totally switching one book for the next and just moving things around. And so he gives me that flexibility. But at the same time, he has

been here for a number of years and he also taught the course last year. So he's able to say, "All right. You know. We need to focus on this." And he's taught me some strategies to allow me to do that.

Between Mr. Tobbs and Mr. Moriarty, we see a coaching relationship that avoids either/ors and integrates multiple virtues. Mr. Tobbs sees virtue in structures and systems, but also sees the importance of ownership and individuality. He has the benefit of direct experience in what Mr. Moriarty is teaching, but also sees the benefits of letting Mr. Moriarty make adaptations. The result is that Mr. Tobbs has the ability to advise and help Mr. Moriarty, but he is also thinking in the longer-run about giving Mr. Moriarty ownership over his work.

To be sure, not every coaching dyad was as effective as these two pairings. There were situations where the mentee teachers felt that the department chair was either not knowledgeable enough about content or not as conscientious in giving feedback. But, on the whole, it was clear that much of the school's success could be attributed to the intensity of the instructional development, which, on average, was much more frequent, more detailed, and more grounded in a clear vision of pedagogy than we saw in other schools we visited.

A Fierce Culture

We struggled with which words to use to describe the nature of the enveloping systems, structures, and culture at No Excuses High. If we called it "coherent" or "systemic" it implied a positive valence; if we said it was like Foucault's "total institution" it would evoke a prison. The truth was somewhere in the middle. Above, we have described the coherence and support part of the story; it seems important also to underscore that the school's power derives in part from a very fierce culture in which both students and adults feel intense pressure to perform.

With respect to instructional development, for example, Mr. Dewitt saw little value in the notion of "psychological safety" for learning. He tells the story, for example, of a workshop that he and some of No Excuses High's staff attended, where the facilitators emphasized that mentors should never have an evaluative role. "Our question at the time was, 'Well, why not?' Like, "What is the big deal about this?'" Mr. Dewitt says. Indeed, in his worldview, the job of the less experienced teacher is to do what the instructional developer says; giving this developer the job of evaluation is only natural since that person is the one who knows the work best. Again, there is a parallel here to the world of professional sports, where athletes are simultaneously coached and evaluated by their employers.

For the students as well, it is clear that behavioral compliance is a must. We saw an assembly where student videos were being projected on a big screen to say thanks to the operations staff. As we described it in our field notes:

The room has a nice energy to it – kids are murmuring and chuckling at seeing one another on videos in front of the entire upper school. But then Mr. Dewitt gets up. "Track here," he says twice. "You are not being respectful," he adds, "and respect is one of our core values. I've already kicked out one ninth grader; you could be next. So we will listen quietly to the videos and then the choir will perform." The room looks hushed and cowed.

Similarly, we witnessed Mr. Dewitt admonishing a group of students for their behavior one day after lunch:

We leave briefly to find another lunch spot, and failing to find one, we come back, and we discover that the principal is forcibly lecturing the 9th graders about their failings, particularly their not turning in homework and being late to class. I'm paraphrasing, but the general idea seems to be that you can choose to do something with your life or not, that there are people who are disciplined and move ahead in life and those who aren't who don't, and that they better shape up or they are going to face summer school. He says that he thinks that too few kids go to summer school as is, and that he is ready to significantly increase the numbers, and that they shouldn't provoke him. A few teachers chime in with similar sentiments. The tone of this is fierce, and the kids are totally silent.

The teachers similarly described a culture where they knew that their jobs were on the line if they did not produce results on the interim assessments or if they crossed their department chairs. Mr. Dewitt was "your boss and not your friend" as one described it. Thus, while the coherence of the system was one part of what produced the school's results, for better or worse, the uncompromising force with which everyone was forced to conform gave the system its backbone.

The Costs of Control

The same structural and cultural choices that produced high levels of consistency in teachers' practice across classrooms also came with significant tradeoffs. Below, we discuss three costs of the regimen of control. Because No Excuses High was such an aligned, mission-driven organization, these tradeoffs often ran in parallel for students and teachers, a parallelism that we have called symmetry.

"Floors and Ceilings"

One metaphor that became helpful in understanding No Excuses High was the idea of "floors" and "ceilings." We were introduced to this by a teacher we will call Ms. Carter, who had once worked at Dewey High and was now at No Excuses High. She began by praising the consistency of the "floors" at No Excuses High:

> At Dewey High a big problem I see is those kids sliding by and maybe the floor I feel was quite low. It's not too hard to pass by not doing very much. Here, I feel like the opposite is true. I feel like even those kids who are C, C minus students here are working extremely hard for those C's and C minuses. There is just no getting around the amount of work that every single student has to put in here. They cannot get around it. It's really unforgiving in every way.

But, at the same time, she saw limits to the approach:

> I mean [this model] has value, but I also feel that there's only so far the tests can push you. I mean the strongest students are not—they're gonna learn a lot of history by studying really hard for the AP U.S. History test, but there's a natural limit set by the test and by the College Board…. I think that diminishes the importance of natural curiosity that is not driven by grades and the desire to do more and push yourself and explore.

Ms. Carter's concern that the highly controlled nature of No Excuses High was diminishing the intrinsic motivation and curiosity of students was shared by a number of other teachers. An English teacher noted, "We do control instruction so carefully that sometimes I worry that it doesn't provide enough opportunity for students to explore. I think our students sometimes don't have an intellectual curiosity, which to me can lead to higher order thinking, or don't have the opportunity for intellectual curiosity, and that's definitely a challenge." As we will see, No Excuses High has become concerned with this "ceilings" problem in recent years; in particular, they have worried that the hyper-controlled preparation they provide does not prepare students well for the more open-ended environment of college.

We saw a similar dynamic of "floors" and "ceilings" playing out in *teachers'* work. Teachers said that because of the extensive systems and structures, "It's nearly impossible to have a lesson that bombs" (creating floors), but it's also "more difficult to have an amazing lesson that inspires." Teachers developed a repertoire of lessons that fit within the No Excuses High prescribed direction, but had few opportunities to explore ideas that were of interest to them or to innovate. First and second year teachers greatly appreciated the level of infrastructure and guided feedback, but more experienced teachers often felt constrained by such high levels of direction. (Similarly, freshmen and sophomores were more positive about the school than juniors and seniors.) Structurally, No Excuses High's organizational structure possessed only two roles—department chairs who developed and checked lesson plans and gave feedback, and teachers who were monitored and developed by those department chairs. That meant that faculty in-between, e.g., those who had a department chair in front of them who was not leaving, found themselves with few growth opportunities. In the year we did most of our research, many of the teachers who were leaving were in this middle group—no longer rookies, but with no space to move into instructional leadership roles.

Similarly, the school's view of teachers as essentially *tabula rasa*—blank slates awaiting No Excuses High's imprinting—held true for first year teachers, but was not a good fit for certain more experienced ones. For example, one teacher came to the school after six years of teaching physics, chemistry, and math in three types of schools. She described her physics teaching at her previous school as somewhat more conceptually focused than at No Excuses High; also, with fewer pressures from tests, she facilitated more labs and spent less time working through calculations. Coming to No Excuses High, she adopted a hybrid style, squeezing in some labs amidst a heavy dose of prep for the physics SAT II. She also described how not everything she wanted to do in physics fit within the standard lesson templates. Thus she faced a choice between either changing her instruction, or writing lesson plans that conformed to the template and then changing them when teaching. Further complicating this dilemma was that some of her lessons were videotaped as part of the school's emphasis on documentation and accountability; she felt particular pressure to conform on taping days. She also had had some run-ins with the administration as she tried to consult with teachers across subject areas—which was not permitted in the strict vertical hierarchy of the school—and was leaving for a better opportunity at the end of the year.

A "False Dichotomy Between Rigor and Joy"

Even for teachers who stayed, there were some persistent wonderings about the strengths and weaknesses of the model. We asked many of the teachers what the best day in their classroom would look like, and were surprised to find that what they said sounded much like those of teachers at any other

school – they were looking for classrooms where students were energetic, engaged, and where the work was taking off without constant prodding. In the same vein, the worry that students were learning more about how to follow No Excuses High's directions than to take any joy in their learning was troubling to many of the teachers. Some themselves asked whether we had come to the right place if we were searching for "deeper learning," which they themselves associated with more project- or problem-based curricula. One longtime teacher described the dilemma as such:

> That tension is real…. I look at project-based learning schools. They seem like a ton of fun! I think one of the problems in education is that we've created this false dichotomy between rigor and joy. …. I do think that a school has to make choices – I wonder if closing the achievement gap means that you have to sacrifice exploration, discovery, or joy, and I don't buy that, but I think you have to solve the intellectual rigor of your work first.

Conversations with students affirmed this sense that they too saw the intensive work as necessary but not enjoyable. Many of them expressed appreciation for what No Excuses High was doing for them in the long run, but as one said, "No one actually likes it here."

A related point that many teachers made was the cost of not having deeper relationships with students:

> I think that No Excuses High is trying to get to a place where students feel more like humans than robots, and I think that that, in three to five years, [the school] needs to -- it needs to continue to progress. They're trying to do that through the advisory system, but relationships are very professional at the school in a way that I think alienates some students from feeling truly part of the community that we are trying to build here . . . . I don't know exactly how to change that, given the demands of the school day, but creating some sort of emotional outlet for students would really, I think, benefit the number of students who are able to succeed all the way through.

Paralleling this concern for the students was a similar issue for the adults. A number of teachers reported struggling with the business-like approach to relationships, which precluded the building of adult friendships some teachers desired. Here a veteran teacher reflects on some of what the school is missing:

> I think that the typical 20-something teacher also wants kind of a personal connection which we do need to think a little bit about in how to support that, because they are looking for friendships in their workplace, and so just making sure that we can, you know, provide opportunity for those to grow and be productive. We are so centered on work sometimes and, you know, outcomes and student achievement and kind of like our purpose that sometimes, you know, we have to remember about how to take care of the adults, a little bit.

"Taking care of the adults" was not Mr. Dewitt's strong suit, as a number of teachers reported. Everyone at No Excuses High was working extremely hard: teachers consistently described working 60, 80, or even 90 hours a week, including coming in for long days on Saturdays, staying up very late or getting up very early. Teachers described the work-life balance as "horrible" and/or non-existent. In such an environment, teachers craved appreciation for their efforts, but said that the culture was so focused on problems and improvement that there was little time to celebrate the positive. One teacher said that No Excuses High was very much a "glass-half-empty" place:

> We're always looking at what's wrong and not frequently enough interested in being proud of what's right. I mean we talk about numbers, we talk about our performance in comparison to other schools with a lot of pride, and we speak in generalities about how amazing our teachers are, but it doesn't get to the personal level enough.

The absence of appreciation and community had real costs when it came to retaining staff. One very strong science teacher was leaving, in part, she said, because when she had been approached by other schools with leadership opportunities, the school had done nothing to show that it valued her. Teachers who were staying on suggested that this lack of appreciation was really costing the school when it came to retaining their strongest teachers. As one of them told us in an interview:

> We had a goodbye party yesterday for teachers who are leaving, and it was kind of like a funeral. I think everyone feels at a funeral, "Man, why don't we ever show appreciation to people when they're alive and say the best things about them when they're dead?" And we said the nicest things about teachers who are leaving, and I can guarantee that if we had said that stuff to them all along, three-quarters of them wouldn't be leaving.

Much as the school's joyless culture and absence of strong relationships contributed to significant student attrition, teachers were having parallel experiences with similar consequences.

"Lowering the Iron Curtain": Race and Bridging the Gap Between the School and the Community

A similar theme emerged in discussion with faculty members about the disconnect between the largely white staff and the largely African-American community. Most faculty members lived outside the highly depressed urban area in which the school is located, and frequently felt that they were largely cut-off from the community in which they were teaching and in which their students were being raised. Here one young history teacher describes his reaction to seeing parents at graduation:

> I was reminded of that at graduation last night, and you see parents who are acting in a way that's drastically different than how students and teachers act here, and just a reminder like kids are leaving a certain atmosphere and are coming here and they act in a completely different way. [When I taught in] North Carolina, you could see the connection between home and school, which I think is very good for learning. I think it promotes a healthy and productive learning environment, but I definitely don't feel like I could speak to a student's real character besides in an academic way.

Critics have been increasingly vociferous that "no excuses" schools' racial stance – largely white teachers telling largely black and brown students that they need to conform to (white) middle class norms if they want to get ahead – is problematic and rooted in deficit assumptions about Black and Latino communities.[18] Some within the school were beginning to reach the same conclusions. Mr. Tobbs, the veteran English teacher, who is white, forcefully argued that the school needs to adopt a more open stance towards the community it is based in:

> I think that the school needs to become more embedded in the community. And what I mean by that is it's -- it is technically now here and obviously our kids are all from [the local city] and -- but we need . . . the kind of relationship you have with an old friend or something, or you know, like a long-term friendship. The city -- and the school needs that with the city, and right now it doesn't

> have it for two reasons. One, it's relatively young still. Two, there's no connection between the staff and the city. There's this like iron curtain up sometimes between us and parents.

Mr. Tobbs continued that acknowledging racial differences with his own students had been important in beginning to bridge that divide:

> I know for me, there was a big change in my sort of presence as a teacher when I acknowledged that to myself and acknowledged to students that I'm White and they're Black . . . . I think schools need to train more in that issue, particularly because we seem to be only getting young, moderately wealthy white kids like myself, to teach.

Much as on the issue of rigor and joy, teachers were again seeing a false dichotomy, seeking to integrate the community and the school, to push forward academically but also to know their students.

Learning and Unlearning: The Challenges of Organizational Change

If we had ended this chapter after our time at No Excuses High in 2012, the above would have been the whole story. In short, the tale would have been about a well-developed organization that was taking very ambitious measures to shape the lives and practices of both its teachers and its students, a model that produced considerable achievements intertwined with significant tradeoffs. We would have said that No Excuses High engaged mostly in what Chris Argryis famously called "single-loop learning," drawing on other "no excuses" schools to improve its practices but not fundamentally questioning the core assumptions of its model.[19]

In the years since we first spent time at No Excuses High, however, the administration has been grappling with the shortcomings of its model. This effort has been prompted by several sources. First, and most importantly, there is the experience of their graduates in college. Like many similar schools, No Excuses High was having more success at getting their students *to* college then in getting them *through* college. Reports from their graduates suggested that they were academically prepared but that many were having considerable trouble navigating the open-ended environment of college.[20] This fact, more than any other, was driving No Excuses High to rethink some of their practices. Second, the broader school reform conversation was shifting in the direction of "deeper learning." Achievement First, a similar charter management organization, partnered with the industrial design firm IDEO to design a new school model which they hoped would redefine their vision of schooling for the future. The air was rife with talk of 21st century skills—collaboration, creativity, and innovation—raising the question of how these older school models could meet this challenge. Third, leaders at No Excuses High told us that our work had added fuel to the fire for them. We had published some shorter versions of the above analysis,[21] and, as Mr. Dewitt told us, "You were the only people who took us seriously and didn't just ideologically dismiss us, but still posed a critique. That was new for us." In particular, the idea that they were helping all of their students to reach floors but weren't creating opportunities for them to reach for ceilings was a galvanizing problem that they hoped to address. Finally, as all of this was happening, the racial awakening created by highly visible incidents of police shootings of unarmed black men and the subsequent Black Lives Matter movement began to infiltrate the language and thinking of No Excuses High.

As a result, No Excuses High spent some significant time venturing outside of no excuses networks to look at other school models, including the school we call here "Dewey High," as well as a number of other high-profile schools which espouse more progressive visions of instruction. In the fall of 2015, one of the teachers who had been at the school the longest, Mr. Tobbs, was given the school's first-ever sabbatical to study deeper learning. Mr. Tobbs conducted his own tour of schools, read widely, and took a bus each week to Cambridge to take the course on deeper learning that we teach at the Harvard Graduate School of Education.

When we returned to No Excuses High in the spring of 2016, there was evidence of significant shifts. Two hours a week are now devoted to "project time" in which all students are required to carry out a project of their own choosing. Projects include making short films, studying and writing poetry, organizing an LBGTQ awareness day, and designing houses using cardboard box dioramas. Building on his sabbatical, Mr. Tobbs was given the freedom to organize his seniors to develop lengthy research projects and presentations on topics of their choosing, such as social media addiction and the history of hip hop. The school now partners with Project Lead the Way, a university-based group that offers a hands-on engineering program.[22] About 1/3 of high school students are now choosing engineering as an elective because of the new program. Another initiative is a partnership with a local university for some of the school's seniors to spend one afternoon a week working in college labs. The school also developed some of its extracurricular spaces as promising platforms for deep learning: the debate team, led by an experienced and highly skilled coach, was an activity the school saw as potentially combining the learning of technique with student advocacy for causes they were passionate about; the literary magazine, led by a beloved English teacher, was similarly seen as a well-developed vehicle for capturing students' thinking while simultaneously training them in different genres of writing. The school was adding electives the following year in African-American literature and Latin American history, electives which pre-enrollment numbers suggested were going to be highly popular with the school's population of Black and Latino students, who were eager for material outside of the traditional canon.

In turn, these shifts in curriculum have also led to some shifts in hiring. Much as Dewey High sought to hire people who were knowledgeable and passionate about something and let them convey that enthusiasm to students, No Excuses High was finding that working in a different mode required hiring different people. The African American literature and Latin American studies courses will be taught by a former Ivy League university instructor who has recently come to the school; the courses will be modeled on those he had been teaching at the college level. The debate coach is himself a highly experienced debater; the journalism teacher had been editor of his college paper. To do more of this kind of work, Mr. Dewitt ruminated, would mean that they would need to find a different pool of people; their usual corps of highly malleable Teach for American graduates did not, for the most part, have the kind of experiences they would need to apprentice students into different fields.

Interviews with students suggested that the partial shift toward the project-based mode had many of the same benefits as found at Dewey High. In particular, students appreciated not only the chance to choose their own topics but the trust and independence that came with being put in charge of their own learning. "I felt like this was the most adult feeling since I came to No Excuses High because I felt like we get babied a lot," said one student. "I just had to research everything on my own, I had to research the sources. I had

to figure out what were the most important key points that I needed to pull out. I had to find an expert on my own, like who to talk to. So I felt that was just very adult . . . it was a very adult feeling, because it wasn't like everything is basically prepared for us." Students also said that they learned more from their peers than they did from teachers. As one student said, "I feel like it was different than most of our other classes because it was more hands-on, like we were the teachers instead of someone in the classroom teaching us. We learned from our peers. And I felt like that's what you should do when you really want to learn something, like we were responsible for our own education."

Our observations of student-led presentations in Mr. Tobbs's class supported this contention; students were highly engaged in their peers' presentations, responding quickly and enthusiastically when asked to identify contemporary songs or discuss the nature of social media addiction. Students also appreciated the chance to have their own interests recognized; one of the most powerful parts of the projects, several students reported, was that they got to share something that they were passionate about with their peers. The students who had organized the LGBTQ awareness and support day said that they felt empowered to take an issue that mattered to them and try to influence the views of their peers. If the goal of the projects was to move closer to the identity and creativity parts of the deeper learning triangle, the interviews with students suggested that they felt this had been accomplished.

The projects also helped to break down the walls between the school and its outside environs. One component of the projects in Mr. Tobbs's class was that students had to interview a real-world expert on their topic. Students emailed and made phone appointments with college professors, music producers, journalists, and other professionals. Students described these interactions as a powerful part of the process. Much as at Dewey High, breaking down the walls between school and the world made the subjects more authentic as students were exposed to the perspectives of people who had spent years thinking and working in the arenas they were studying. Students also found it profoundly affirming that high-status people in the real world, like college professors, would respond to their emails and treat their interrogations as worthy of respect.

At the same time, Mr. Tobbs told us that he was worried that increases in agency and engagement were coming at the expense of rigor. The social media presentation, for example, involved a mixture of statistics and videos drawn from the Internet, some participatory questions for the audience, a thesis about the problem, and a short discussion around the thesis. Mr. Tobbs said that he worried that the presentations were too much like a "really dynamic dinner party conversation"—someone throws out a provocative thesis and everyone adds a bit of what they know, but it doesn't really go anywhere. Judged by Bloom's taxonomy, we would agree: while some of the information presented was interesting, the level of analysis, both by the presenters and in the discussion, was fairly superficial. In particular, much of the information was presented without scrutiny of the statistics and of how they were derived; the thesis statements took fairly simple positions "social media is harmful; hip hop is derogatory whereas R & B was celebratory"—that masked complex underlying debates. More generally, if, as Dewey said, education is about linking the tree of knowledge in students' heads with the tree of knowledge that exists in the world, these presentations were more tilted towards bringing out students' existing knowledge and interests than towards using that spark to lead them to broader bodies of knowledge.

Interviews with the students affirmed this assessment. They thought that their presentations were not as strong as some of their other academic work, but they ascribed this to the fact that they hadn't had any practice in the genre. We do everything else over and over, they said, and so we get better at it; this was our first time doing this kind of work, so naturally it wasn't as good as it could have been. But, they asked, Why is this something we are only doing senior year, when school is almost over, rather than a core part of our educational diet from the beginning?

Competing Commitments and the Unlearning Challenge: Structure, Culture, and External Incentives

We posed this question to Mr. Dewitt and to everyone else we talked to on the faculty. With one important exception, which we will discuss below, the steps that No Excuses High has taken to incorporate a different approach to learning have been *around* rather than *inside* their core disciplinary classes, what we describe in a later chapter as the *periphery* rather than the *core*. In particular, as described above, they have used electives to offer the new courses in engineering, African-American literature and Latin American history; they have used extracurriculars to do journalism, literary writing, and debate; they have used the period after seniors' college applications are in to let Mr. Tobbs develop student-driven presentations; and they have devoted two hours per week to developing projects. What they have not done is make many changes to their core disciplinary classes: most of the time, students still do lessons organized by the guided practice template; carefully subdivided chunks of time still seek to build proficiency in disciplinary content. Moreover, this "core" is where the school's emphasis continues to lie; teachers told us that there were few incentives to do well on the projects and little feedback and professional development associated with them.

Why has more significant change proven so difficult? In short, we see the school as caught between competing sets of commitments: an older set, around which their structures are organized and which is embedded in their culture, identity, and epistemology; and a newer set, which would require undoing structures, rethinking their core identity and commitments, and risking the external markers upon which much of their success and credibility rests.

To begin with structures, the heart of the school's success rests on two elements: compelling student effort through use of timers, detention, homework bins, and other devices, and overseeing faculty work through lesson plans and extensive teacher feedback, mechanisms which together ensure that department chairs and other instructional leaders retain tight control of daily instruction. Recently, the school has been charged with developing lesson plans for the other high schools in the charter network with which it is affiliated. In light of this reality, there is little appetite for re-doing years' worth of curriculum and lesson planning, and, even if there were, the expectation to produce lessons not just for their own school but also for others would interfere. There are considerable sunk costs in what they have built to date, and making changes would require building something anew. Mr. Dewitt's response when we asked about shifting to the International Baccalaureate Program helps to illuminate this reality. "We have a lot to lose by not exploiting what we know works," he said.

A second barrier to change is the importance of existing external markers which affirm the school's quality. As Mr. Dewitt describes it, "I need the students to be taken seriously by outside observers, by outside evaluators, like admissions committees. So, a school in [city which No Excuses High calls home], unless we're riding on our reputation, which is not anything with admissions counselors who are one or two years out of college, who never heard of us, all they see is we're from [city]. We got to have credentials, we got to have like bona fide stuff we can point to." As we have seen, the school has aced such external metrics in the form of APs, SAT IIs, and performance on state tests; deemphasizing those tests risks much of what the school has achieved. The fact that there is not a similar set of external mechanisms for judging the quality of project-based learning or other forms of inquiry-directed instruction means that the school would neither have something from which it can backwards plan, nor have a way to demonstrate the quality of its students' work.

In addition to these structural barriers and external incentives, the most fundamental obstacle to change is that giving students more agency would threaten core aspects of the school's values and commitments. If one vision of deeper learning is to give students more ability to direct their own learning, to assume greater agency, and to have opportunities to fail, the school was deeply conflicted about such a shift. This question was particularly salient in the context of readying students for the more open-ended environment of college. For example, consider the words of Mr. Allington, the history department chair, who is one of the school's longest tenured teachers:

> One of the things we definitely grapple with is sort of that gradual release of responsibilities and ownership for students. I mean that to me, that's probably the last step if you're talking about college-readiness, right? There's not going to be anyone hovering over you to make sure you get your research paper done. . . . You want them to be college-ready, they need to have room to fail, but at the same time you can't allow them to fail because you're not doing the work of closing the achievement gap if you do that. So, where's the happy medium there, like figuring out exactly what that looks like? And a lot of the work we've done with college-readiness skills, and you know, the lesson plan types and all of that has been kind of geared towards addressing that concern, but [I] don't know if we're 100% there yet, probably not.

A similar view was voiced by Ms. Carter, the teacher who had moved from Dewey High to No Excuses High, who reflected, "Even if we loosen those surface level structures, we are not going to let them fail. In college, they very well could fail. So I think it's important to let them semi-fail in a place that's not going to let them completely fail before they completely fail in a less supportive environment."

These comments illuminate the dilemma which faces No Excuses High as it considers moving towards more open-ended learning. At one level, the school's teachers and leaders are aware that students will need to take more responsibility for their own learning if they are going to succeed in college; at a more fundamental level, however, they worry that giving students more rope risks letting them fail to learn key content. Hence, moving in the direction of more student-directed learning potentially threatens core aspects of the school's *raison d'etre*.

A similar dilemma exists at the teacher level. In theory, giving teachers room to take greater ownership of their lessons would make them feel more invested in their work, which, in turn, would make them,

especially experienced teachers, more likely to stay. At the same time, however, allowing teachers to make revisions to lessons potentially compromises the school's consistent level of rigor. An experienced history teacher describes this conundrum: "We've talked a lot about creating safe places for students to fail and to take risks. I don't think it is there for teachers.... Failures amongst teachers become very public." This veteran went on to say that what was routinely assessed for teachers was student progress on interim assessments, state tests, SAT IIs, and Advanced Placement tests, and in such a climate, success is expected and failure is not tolerated.

For Ms. Carter, who moved from Dewey High to No Excuses High, the contrast was stark.

> At Dewey High, they were okay with me trying something and it failing. When you're doing a project or an inquiry-based lesson and something is just a little bit messy. . . no matter how much time you spend planning, there's some non-trivial probability that it is going to fail, that the students are not going to learn, that there's going to be some disaster that the experiment doesn't work, whatever it is. Here, there's not that forgiveness. There's this sense of urgency that you don't have time for a bad lesson. . . . Here it's different. I mean I think there's intentionally a little bit of the culture of fear. At the beginning of the year, before I knew any better, I was always afraid that if I gave a bad lesson, I was gonna get fired. I think that's a little bit my paranoia, but there was definitely a little bit of that.

The absence of this room for experimentation is not a coincidence; it is baked into Mr. Dewitt's vision of the school and his hierarchical view of expertise. In his view, only a few senior people should be innovating; the rest should be implementing the innovations of the few:

> Our metaphor is kind of like the nation and a frontier. We only have some people on the frontier and they're the ones who should be exploring, and the other ones should be building the country. So, teachers like [Mr. Allington] we want on the frontier exploring the new fringes, and then everybody else we want in the building.

What Mr. Dewitt refers to here is equivalent to what organizational theorists Michael Tushman and Charles O'Reilly call the "ambidextrous organization," a descriptor of organizations which simultaneously seek to meet the challenges of the present while designating sub-units to plan for the future. Work in this vein has emphasized how difficult it is to become an ambidextrous organization, in particular because the cultural and structural requirements of "exploration"—discovering new possibilities—are very different from what is needed for "exploitation"—getting more people to do what is already known. As Justin Jansen and colleagues describe it, "Exploration and exploitation require fundamentally different and inconsistent architectures and competencies that create paradoxical challenges. Whereas exploration has been associated with flexibility, decentralization, and loose cultures, exploitation has been related to efficiency, centralization, and tight cultures."[23] From this perspective, No Excuses High is fundamentally organized to promote exploitation, and thus creating significant innovation within its current structure is a particular challenge.

<u>The College Challenge: Innovation Within Existing Grooves</u>

All of these questions came to a head around the question of what it would take to help students succeed in college. Interviews that the school conducted with their alumni suggested that the problem was less in academic preparation than in dealing with the more general shift that came with moving to an open-ended college environment. Ms. Whitman, who was the guidance counselor during our first research trip in 2012, characterized the challenge for its students this way, “They need to learn time management, how to advocate for yourself, work in study groups, and lead your peers in discussion.” The current guidance counselor, Mr. Pickford, describes the challenges similarly:

> I think our students struggle with becoming the drivers of their learning more than anything because when they are here, they are in really intentional -- intentionally planned classes, right? Their teachers are super intentional with every move that they make in terms of their lesson planning, in terms of how they teach the content. And so, when they get into a classroom setting where they're not being given as much structure, they suddenly start to realize they have to change their practices, they have to spend more time studying, forming study groups, leveraging their peers more.

Mr. Dewitt describes the impetus for some of the recent changes that No Excuses High has made:

> The impetus was that all we did was guided practice. It's, "You know, here's what we want you to do, let's do it together. Now, you do it, I'm going to monitor you." And we would do that over, and over, and over again because it was very effective in teaching discrete skills and content. But it wasn't representative of what our alumni were telling us they were encountering in college. And so, our alumni are so unprepared for college, and you name it, they are unprepared in that way. So, in addition to all the race stuff, and leaving [their home city], and feeling unprepared, and entering a society which doesn't look like theirs, and overt racism, on top of it then, they came from a very controlling high school which gave them no choices and didn't prepare them to make choices, didn't even let them not do their homework to face that consequence, and didn't prepare them for college lectures, didn't prepare them for shitty college instruction, which is the vast majority of what's going on in colleges.

In response to these challenges, No Excuses High has made some adjustments. One component of these adjustments is simply to extend into college the kind of enveloping support it had provided for students in high school. The school had counselors call students to ask them how they were faring in college and what they were struggling with, and to encourage them to go to office hours and seek out on-campus resources like writing centers and student support offices. Belying its strict image, the school also sent care packages to students during finals, including, as one alum told us, “candy, popcorn, lipsticks, lotions, toothbrush, like all of that. And it was just really good, and the feeling was like ‘Oh, No Excuses High is still thinking about us.’”

A more substantial change was the development of two new lesson templates: “college lecture” and “student seminar.” These templates deliberately mapped onto two of the largest academic challenges which students reported facing in college. College lecture is a template in which teachers show students how to take notes on longer lectures, including how to spot the main ideas and how to organize their notes. Mr. Dewitt notes, ruefully, that this has been hard for the teachers because it requires them to

stop their usual practice of frequently checking for understanding, and to move towards a model of delivery with no regard for whether what is being delivered is being understood.

Student seminar, as the name implies, is a template in which students are expected to discuss a text or a question, responding and building on each other's comments. As would be expected, this template was developed by a few of No Excuses High's most experienced teachers and includes a detailed rubric which specifies how students are expected to talk. Seminars have been videotaped and presented to students as models. In several seminars we saw, students were asked to evaluate the quality of the comments that the class had made and to think about steps for improvement. All of these strategies were refined as leaders and teachers tried to build the best version of the student seminar that they could.

The student seminars were popular with teachers and students because they provided a break from the guided practice template and gave students a chance to interact with each other. At the same time, the emphasis on objective-driven learning did constrain some of the potentially free-flowing discussion that one might think of as constitutive of this mode of learning. As Ms. Kilroy describes it,

> I do think that we still think there's kind of a right answer, you know, when I do a student seminar and it's supposed to sort of predict all the possible answers that students could come up with. In my lesson plans, I should script out my questions and all the possible answers that students should potentially come to with those, and there's not really room for questions that I don't have answers to.

The reasons for these choices come directly from Mr. Dewitt's vision of learning, and the dangers he sees of freelancing on the part of both students and teachers. As he says, "We don't want our lesson templates to be interpreted in 31 different ways or 28 different ways by our teachers. That will be a disaster. We're trying to avoid the wishy-washy outcomes and have it be specific."

Thus we see in No Excuses High's response to the college challenge a set of choices that is consistent with its overall value orientation. The initial step was simply to extend into college the support that is so characteristic of the high school in the hope that No Excuses High could continue to provide the support and structure that had gotten its students to that point. The next step was to make some alterations in lesson templates to give students more practice at discussion, but the organization of the student seminars was still consistent with the school's overall epistemology of concrete objectives. In structuring the process of change, the school also maintained tight control, with a small number of people innovating and the larger group executing codified versions of this implementation. In ways big and small, the response to this challenge was very much within the contours of the school's overall approach, values, and epistemology.

Conclusion: No Excuses and Deeper Learning?

How should we assess No Excuses High? In a nutshell, what we observed is that the school and its feeder middle school have taken students who lack dominant social and cultural capital, and, through intensive regimes of behavioral control and controlled courses of study, have enabled those students who stay at the school to acquire knowledge and skill in disciplinary subjects. As measured by a range of external

assessments, including state tests, APs, and PISA, students do very well, outpacing many from more affluent suburbs on these exams. At the same time, the school's design choices come with corresponding tradeoffs—students report little intrinsic interest in their studies, many choose to leave the school, and those who graduate report being prepared academically but often unprepared psychologically to deal with the open-ended nature of college and adult life.

Put another way, the school has, through an extensive set of processes, created a certain "floor" of achievement for all of its students, but these same systems have constrained their "ceilings." In particular, centralized lesson planning and micro-timed lessons are effective in making sure that students acquire particular pieces of knowledge, but are less well-suited to the sustained and open-ended explorations that deeper inquiry often requires. At its best, we might compare what the school does to the early stages of learning a classical instrument—in small chunks, where constraint and repetition promote agency in absorbing disciplinary learning habits and structure the learning process. At its worst, we might say that what happens in the school is a poor facsimile of what actually happens in the disciplines – in part because of the limits imposed by the external assessments but also in large part because of the school's instructional model—students, for example, learn about what professional historians and biologists have done rather than themselves learning to engage in the messy and uncertain explorations that are characteristic of doing history and biology.

We see a symmetrical pattern for teachers. Early-career teachers find the scaffolded approach to instructional development immensely rewarding and appreciate its intentionality. More experienced teachers, or teachers with contrasting philosophies, are less enthusiastic; many wish there were more opportunities for them to share ideas and to develop new types of lessons. The result is that there are few lessons which do not meet a minimum standard, but also few lessons which really fly. In many ways, these contrasts are a mirror image of what we saw at Dewey High, where there were a number of examples of truly exceptional work, but not a floor, for all students, of foundational knowledge and skill.

Part of the challenge is that the school's systems and structures are targeted at first and second year teachers who have been the organization's bread and butter. Like many other no excuses schools, No Excuses High is staffed primarily by very young teachers working very long hours. It is an open question whether, if the school created a more positive and sustainable adult culture and more opportunities for adult growth, it could retain more of its teachers or recruit more experienced teachers. As the model currently stands, systems and structures which are set up to train young teachers often burn them out, which, in a self-fulfilling prophecy, requires more young teachers, which makes it hard to change the structures.[24]

No Excuses High is aware of some these tradeoffs and has worked to address them. With respect to raising the ceilings for students, in particular, it has made significant changes in the elective and extracurricular arenas to give students opportunities to do more extended work and to give teachers more flexibility to teach subjects they are passionate about. But these changes have not yet penetrated core instruction, because the school is afraid to risk what it has achieved, because it has huge sunk costs poured into its existing lessons and structures, and because it is unclear how to externally assess other modes of learning. There is a central tension between the school's desire to close achievement gaps and the methods of

control it thinks are necessary to do that, and the goal of giving students more open-ended and student-directed experiences. This tension limits the scope of the experimentation the school is willing to try. Thus, the school has made significant progress towards the mastery end of the deeper learning triangle, but has done so at the expense of identity and creativity. It is the mirror image of Dewey High: both have achieved considerable things; both are still searching for the sweet spot. Achieving this integration would require undoing as much as adding; the unwillingness to change what has gotten them as far as they have limits their ability to reach the next level of work.

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We began this chapter with David Cohen's admonition that a look at Eastern countries that top the PISA rankings might suggest that there is more than one route to deeper learning. As it happens, while we were working on this chapter, one of us, Mehta, was given an opportunity to conduct a site visit to Shanghai as part of an international educational summit. As I watched classes unfold with the help of a translator, I was struck by a nagging sense of familiarity. In one upper elementary math class, for example, students were sitting in groups of four, facing forward, with the teacher at the front of the room. Attention was complete—every student was focused on the task. The task itself was a fairly difficult one—students were being asked about different ways of bisecting a rectangle—but it was split into parts. As each part was introduced, students were asked to work on it, first individually, then in their fours, and then in front of the whole class. One part did not give way to the next until it was clear that everyone had done the previous part. The class proceeded in this way—teacher-directed but with students doing most of the mental work--for an hour, at which point homework that built on the work from the day was distributed.

The parallels to what we had seen in No Excuses High were considerable. The core values and the core practices were similar. With respect to values, there was respect for adult authority and a strong belief that carefully designed teacher-directed lessons were the surest way to produce consistent learning. In terms of practice, both systems were organized around a set of external exams which governed much of what happened inside the schools. Both had high levels of behavioral control and thus high levels of time on task—in No Excuses High's case, produced by their systems of detentions and consequences, and in Shanghai's case produced by parental pressure, Confucian culture, and, for older students, college entrance exams. The results, in both cases, were students who, over time, accumulated considerable amounts of disciplinary knowledge, which enabled them to fare well on international assessments, including the PISA.

At the same time, teachers, administrators, and ministry officials we talked with in Shanghai were struggling with many of the same challenges that we saw at No Excuses High. While the American contingent had come to find out how Shanghai topped the PISA, many of the Shanghai members grilled the Americans about how they promoted independent thinking and creativity. In particular, Shanghai teachers and administrators were worried that their students and parents were too fixated on the external exams, and were frustrated at their inability to cultivate more intrinsic interest in learning and more independent thinking. But, again similar to No Excuses High, while they had formed working groups on 21st century skills and had introduced some electives that moved in this direction, they were unwilling to make core changes to their basic patterns of instruction or to the external assessments around which their

system is oriented. For them as well, unlearning and undoing may be critical if they want to move from their current strengths to becoming the kind of schools they aspire to be.

Ironically, in Shanghai a number of our interviewees told us that many of the most interesting and creative schools were ones where the external exams were not the be all and end all. These were either private schools, public schools that served students who were so advantaged or skilled that they were likely to do well on the exams in any case, or public schools where the leader had publicly argued that lower exam scores were worth it in order to produce well-rounded human beings. This observation carries distinct parallels to the United States , where many of the best schools also in one way or another stay outside of or transcend the dominant system—either privates, highly advantaged publics, or schools with leaders possessing unusual courage of their convictions.

The problem, of course, is that while these particular schools are good for their students, in the absence of systemic guidance and support it is hard to expect that there will be very many of them or that they will be sustained over time. Could there be a system of schools that creates clear external guidance and expectations, but does so in a way that is more oriented towards deeper learning? International Baccalaureate aspires to be that system; we turn to it next.

Endnotes

[1] Deborah Walker and Linda Lampert, "Learning and Leading Theory: A Century in the Making." in *The Constructivist Leader,* ed. Linda Lampert et al. (New York: Teachers College Press, 1995), pp. 1-27.

[2] David Whitman, *Sweating the Small Stuff: Inner-City Schools and the New Paternalism* (Washington, D.C.: Thomas B. Fordham Institute, 2008).

[3] Whitman (2008). In George Lakoff's terms, no excuses schools embrace "strict father" morality, which is the idea that young people need to be disciplined if they are going to resist their natural urges and become productive and self-disciplined citizens. Lakoff contrasts this to the "nurturant parent" worldview in which people are inherently good and the role of the parent is to teach children to care for other people. While many in the no excuses world think of themselves as liberals because they are concerned with equity and social mobility, their view of how to achieve those ends is conservative in the Lakoff sense. George Lakoff, *Moral Politics: How Liberals and Conservatives Think* (Chicago: University of Chicago Press, 2002).

[4] Quantitative research has generally found that no excuses schools, unlike charter schools as a whole, have positive effects on math and reading scores on state tests and on college enrollment: Atila Abdulkadiroğlu, Joshua D. Angrist, Susan M. Dynarski, Thomas J. Kane, and Parag A. Pathak, "Accountability in Public Schools: Evidence from Boston's Charters and Pilots." *Quarterly Journal of Economics*, 126, no. 2 (2011): 699-748; Joshua Angrist, Parag A. Pathak and Christopher R. Walters, "Explaining Charter School Effectiveness." *American Economic Journal: Applied Economics*, 5, no. 4 (2013): 1-27; Joshua D Angrist, Sarah Cohodes, Susan Dynarski, Parag A. Pathak, and Christopher Walters, "Stand and Deliver: Effects of Boston's Charter High Schools on College Preparation, Entry, and Choice." *Journal of Labor Economics*, 34, no. 2 (2016): 275-318; Will Dobbie and Roland G. Fryer, "The Medium-Term Impacts of High-Achieving Charter Schools." *Journal of Political Economy*, 123, no 5 (2015): 985-1037. One recent study by Dobbie and Fryer finds little impact of attending no excuses schools on labor market outcomes, suggesting that perhaps the short-term human capital effects are not translating to underlying skills valued in the labor market: Will Dobbie and Roland G. Fryer, "Charter Schools and Labor Market Outcomes." NBER Working Paper No. 22502 (2016).

[5] Katrina Bulkley, *Between Public and Private: Politics, Governance and the New Portfolio Models for Urban School Reform* (Cambridge: Harvard Education Press, 2010).

[6] Joanne Golann, "The Paradox of Success at a No Excuses School," *Sociology of Education* 88, no. 2 (2015): 103-119.

[7] KIPP Foundation. (2011). *The Promise of College Completion: KIPP's Early Successes and Challenges*. Retrieved from: www.kipp.org/about-kipp/results/college-completion-report

[8] Joan F. Goodman, "Charter Management Organizations and the Regulated Environment: Is It Worth the Price?" *Educational Researcher*, *42*, no. 2 (2013): 89–96.

[9] Katherine Merseth et al., *Inside Urban Charter Schools: Promising Practices and Strategies in Five Urban Charter Schools* (Cambridge, MA: Harvard Education Press, 2008); Joanne Golann, "Scripting the Moves: Class, Control and Urban School Reform," Ph.D. Dissertation, Princeton University, Department of Sociology (2016); Seneca Rosenberg, "Organizing for Quality in Education: Individualistic and Systemic Approaches to Teacher Quality," Ph.D. Dissertation, University of Michigan, School of Education (2012).

[10] The data about the school's performance comes from the school's published fact sheet.

[11] Data on attrition at no excuses charters are surprisingly difficult to come by. A study by Mathematica of KIPP middle schools found attrition of 34 percent between grades 5 and 7, which was not statistically different from attrition in district middle schools: Ira Nichols-Barrer et al., "Student Selection, Attrition, and Replacement in KIPP Middle Schools," *Education Evaluation and Policy Analysis,* 9 (2016): 36-58.

There do not appear to be attrition studies on other no excuses charter networks. Despite the absence of more systematic evidence, many charter researchers and observers have significant concern about high attrition rates at no excuses CMOs; from this perspective, what we witnessed at No Excuses High seems fairly similar to what other knowledgeable observers have witnessed at other similar schools.

[12] Ron W. Zimmer and Cassandra M. Guarino, "Is There Empirical Evidence That Charter Schools "Push Out" Low-Performing Students?" *Educational Evaluation and Policy Analysis* 35, no. 4 (2013): 461-480.

[13] Arthur Powell, Eleanor Farrar, and David Cohen, *The Shopping Mall High School: Winners and Losers in the Education Marketplace* (Boston: Houghton Mifflin, 1985).

[14] Jerome Bruner, *The Process of Education* (Cambridge: Harvard University Press, 1960).

[15] Magdalene Lampert, *Teaching Problems and the Problems of Teaching (*New Haven, CT: Yale University Press, 2001);

[16] James Hiebert et al., "Mathematics teaching in the United States today (and tomorrow): Results from the TIMSS 1999 video study." *Educational Evaluation and Policy Analysis,* 27, no 2 (2005), 111-132.

[17] Rosenberg (2012).

[18] Terrenda White, "Charter schools: Demystifying Whiteness in a market of "no excuses" corporate-styled charter schools." In B. Picower & E. Mayorga (Eds.), *What's Race Got To Do With It?* (New York: Peter Lang, 2015), 121-145.

[19] Chris Argyris, "Double Loop Learning in Organizations," *Harvard Business Review* (September 1977).

[20] Because "no excuses" schools began as middle schools in the mid to late 1990s, it was only by about 2010 that it was possible to begin gathering data on college completion rates for students from these networks. The first internal study of Bay Area KIPP Schools KIPP schools found that 36 percent of students who had graduated from their high schools had completed college in six years: KIPP Foundation. (2011). *The Promise of College Completion: KIPP's Early Successes and Challenges*. Retrieved from: www.kipp.org/about-kipp/results/college-completion-report. These findings crystallized the concerns of many in "no excuses" networks that despite the extensive effort put in by the schools and the students, there was still more work to be done to get the students to college graduation.

[21] Jal Mehta, "Unlearning is Critical for Deeper Learning," *Learning Deeply Blog*, *Education Week*, January 6, 2015: http://blogs.edweek.org/edweek/learning_deeply/2015/01/unlearning_is_critical_for_deep_learning.html; Jal Mehta and Sarah Fine, "The Elusive Quest for Deeper Learning," *Harvard Education Letter* 30, no. 4 (2013).

[22] See https://www.pltw.org.

[23] Justin Jansen et al., "Structural Differentiation and Ambidexterity: The Mediating Role of Integration Mechanisms." *Organization Science*, 20 no. 4 (2009): 797-811.

[24] This is a more specific manifestation of the more general notion of contingency in organizational design. The idea is that different organizational structures are appropriate for personnel with different levels of skill, and tasks that vary in their level of complexity. See P.R. Lawrence, and Jay Lorsch, *Organization and Environment: Managing Differentiation and Integration* (Boston: Harvard Business Press, 1967).