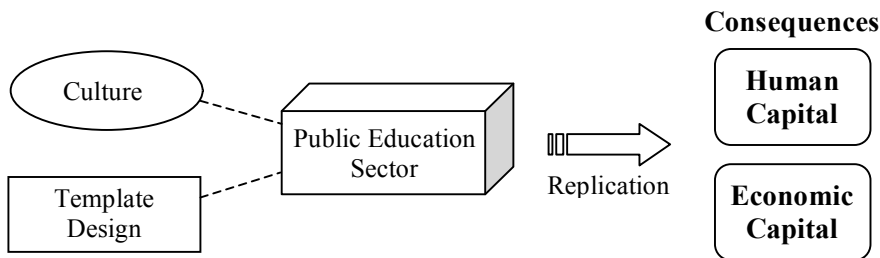


CHAPTER TWELVE

Public Education: A Sector Redesign Challenge*Sector Consequences, Sector Templates, Sector Culture***Public Education and its Consequences**

America's public schools enroll nearly fifty million children. On average, Americans send 3.8 million children to school in each grade. But not all our children make it to the finish line of high school graduation; 800,000 disappear from the rolls and only 3 million actually graduate.¹ Public school success is crucial to human capital success. When a child emerges from public school with a good education, society benefits. When a child disappears from public school, with little or no real education to show for it, society suffers. Too much of our learning potential is still locked up by old ways of doing business.

We know that education is highly individual. Each child comes from a particular family and a particular neighborhood and grows up with a particular set of peers. Each teacher comes from a particular background and practices his or her trade in a particular school. Each teacher gives what he or she can, each child takes what he or she can. In the individual classroom, it is all very personal.

At the same time, what happens in our schools is of national consequence. It isn't enough to settle for some success for some of our children; we want substantial success, and we want it for all of our children. McKinsey, one of America's elite consulting firms, recently completed a study that compared educational success in America with educational success in a number of our industrial peers and rivals. Their findings were sobering.

"The Program for International Student Assessment (PISA) is a respected international comparison of 15-year-olds by the OECD that measures 'real-world' (applied) learning and problem-solving ability. In 2006, the United States ranked 25th of 30 nations in math, and 24th of 30 in science. American 15-year-olds are on par with students in Portugal and the Slovak Republic, rather than with students in countries that are more relevant competitors..."²

Gross Domestic Product in the United States would be "up to \$2.3 trillion higher in 2008 had the United States succeeded in closing the achievement gap in the 15 years after *A Nation at Risk* was published in 1983."³

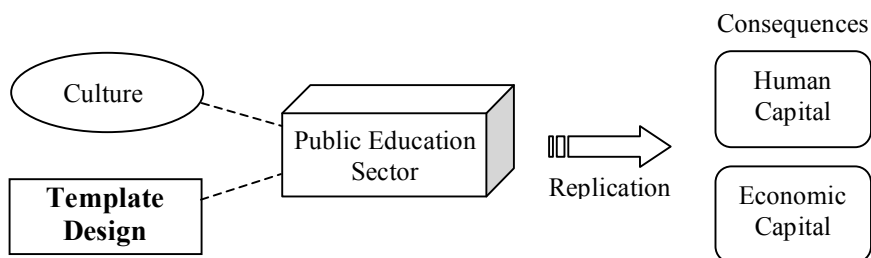
Sobering as this assessment is, we face massive inertia. The public education sector is massive and anything but nimble. It operates by a deeply entrenched culture and a deeply entrenched set of methodological templates. It replicates success for some, mediocrity for others, and failure for others, at much the same rate year after year after year. Where schools succeed, America's human capital balance sheet improves. Where schools fail, America's human capital balance sheet suffers. If we are to aspire to be all we can, as a nation, we shall have to take on the culture and the methodology of public education, and insist on a deeper level of reinvention. The gap between the Actual, of today, and the Promise, of tomorrow, is painfully wide.

The inertial momentum of today's system is enormous. America has more than fifteen thousand school districts, most of them quite small, more than a hundred thousand schools, and roughly three million teachers. And everyone wants a say – teachers, principals, school board members, state superintendents, state legislators, governors, Senators, Congressmen, the Secretary of Education, and the President. Plus newspaper editors and millions of moms and dads. And, of course, our children.

The complexity of today's world is daunting. Immigrants come to America from all over the world, legally and illegally, and their children show up in public schools speaking many languages. How many principals have the multi-lingual teachers they need? Too many children grow up in one parent homes, and even in two parent homes, both parents are often pulled away by jobs. To the long-standing distractions of television modern life has added the distractions of computers, cell phones, text messages, tweets, sugar-drenched foods, caffeine, and more severe mood-altering drugs. But the modern world is a fact of life for our industrial peers, too, and their children learn a lot more than ours.

With all this scale and complexity in mind, let's look first at template design. We need to bring our minds back to the obvious.

Sector Design Essentials



I used to work in manufacturing. From 1983 to 1985, I was at Cummins Engine Company, in its Jamestown NY Engine Plant, just as two key paradigm shifts were taking place in American manufacturing. It was time to leave behind Corrective Quality and embrace Preventive Quality. And it was time to say good-bye to the Just In Case paradigm for inventory and embrace its direct opposite, Just In Time inventory. In the mid-1980s, the assembly line at the Jamestown plant was flanked by racks and racks of inventory, a 20 days supply, or more, to support a mere 50 engines a day. Now, with assembly volumes nine and ten times higher, the material storage racks of yesterday have entirely disappeared. Just In Time has taken over, a new worldview, a new template, a powerful source of the plant's current success.

Working for Cummins in the midst of that transformation taught me to look at each step in an assembly process as intended to add value to the final product. If any particular step in the assembly process is poorly designed but functionally reliable, it will add value but its cost will be high. If the process is efficient but unreliable, its cost may be reasonable when no mistakes are made, but every time it creates a defect, it undercuts the factory's mission. Quality failures take away all of an engine's value, and its value cannot be restored till the quality problem is resolved.

Some failures are easily fixed; we called those Rework. Other failures are irredeemable; we called those Scrap. And some failures don't occur till the engine is in duty under the hood of an eighteen-wheeler. Those failures were known as Warranty Costs.

In public education, we find similar themes. Does a child learn the lesson of the week? If yes, value has been added. If no, value has not been added, and Rework may be necessary. In public education, Rework is known as Remedial Reading, or Remedial Math, or even Special Ed, but it's still Rework. Do children sometimes disappear from the school system altogether? In manufacturing we spoke of Scrap, in public education we speak of Dropouts. Tens of thousands of dollars invested, but the child doesn't learn enough and doesn't graduate. Do yesterday's school children, once they become adults, sometimes commit crimes and find themselves in jail? In manufacturing, downstream failures would be counted as Warranty Costs, and they'd create a substantial liability for the company. In public education, though, no one thinks to trace today's imprisoned felons back to the school system that didn't educate them properly. Nothing is ever deducted from a teacher's salary if her students drop out, commit crimes, and end up in jail. She's free to fail, and fail again, and so are her principal and her superintendent and her school board.

School, of course, involves a much longer and more complex set of processes. Cummins can build a diesel engine with just a few hours of assembly labor. It takes thirteen years of teaching and learning to get a five year old kindergartner all the way through so he can walk across the stage and receive his high school diploma.

But the essence of the education process is the same. Each week, in each classroom and in each subject area, each student is expected to learn the lesson of the week. If the student learns the lesson, value has been added. If the student doesn't learn the lesson, value has not been added. International tests help us compare the relative successes of school systems in different nations. Where a high percentage of students do well and a low percentage do poorly, we can say with some confidence that those school systems are pretty smart about adding value. Where only a modest percentage of students do quite well, where a disproportionately high percentage of students do poorly, we can also say with some confidence that the school systems they attend are not so smart about adding value.

Folks in manufacturing have an easier time of it, we know. They can identify failure factors and remove them. They can identify missing success factors and add them. Once a failure factor is removed, it tends to stay removed. Once a success factor is present, it tends to stick around.

Schools are different. Failure factors, even when they're well understood, insist on creeping back in. Success factors, even when they're known, have a way of evaporating if one is not careful.

Still, the same logic applies. Understand the value that must be added. Take away failure factors. Add success factors. If the success factors are strong enough, and the failure factors weak enough, children will learn. Value will be added. Dropout rates will shrink, warranty costs will fall, and human capital will improve.

What I describe here, as elsewhere, is stewardship based on the scientific method. Form a success hypothesis. Test the hypothesis. Gather data on the consequences of the test. Use the data

to refine the success hypothesis, and test the modified hypothesis. Keep at it till the templates are right and success is replicable. Learning organizations do this. Schools, alas, seldom do this. The adults who run our schools are not learning driven, paradoxical as that may seem, they are rule driven.

Truly successful principals and truly successful teachers all seem to operate from a similar implicit hypothesis. They start with the child, and in their minds they know a simple truth. *A child learns when an environment rich in success factors has been created.* And they fill their classrooms with so many success factors that every child gets caught up in the excitement of learning. They succeed because they begin with their value-adding responsibility – every child learning every lesson – and they refine and refine their success hypothesis till it works with every child.

The first success ingredient that shows up in every great school is a powerful and exciting culture. “There are no shortcuts.” “Work hard, be nice.” “Every child can succeed. No exceptions.” “You’re in the starting college class of 2014.” Every single child is valued, and the culture pushes every single child to work hard and learn each lesson.

The second success ingredient that shows up often is an intense concern for what I call the “learnability” of each lesson. Has the material been presented with such clarity that all students will understand? If a child doesn’t understand, is there a way for the child to get help right away? Is the material presented with enough excitement that the children will be caught up in learning the lesson?

The third success ingredient is successful coaching. Few teachers are born with all the coaching skills they need; most teachers need feedback from their peers if they are to bring their coaching skills to the highest possible level. Great schools expect teachers to be great coaches, but they know that regular observation and feedback are essential if that is to happen.

The fourth success ingredient is time. Not all children can learn to mastery within a six hour school day or a five day school week or a 36 week school year. Teachers and principals that want success for all children find ways to lengthen the day, lengthen the week, and lengthen the year.

The success hypothesis in great schools and great classrooms is blindingly clear. A child learns when motivation is strong, lessons are learnable, teachers give effective coaching, and the time invested in learning is sufficient.

Some would argue that motivation is not entirely in the hands of the school. One principal I know serves many kids from low income homes. In one “home,” the mom is a drug addict and the boy friend is a dealer. In another, the mom is an alcoholic and drinks herself into a stupor by 9 each evening. She orders her eight year old daughter to look after the younger kids and then she passes out. One night the five year old set a serious fire. There are limits to what a principal can do. She files reports with the local Department of Social Services, but the department is so badly run that no one ever follows up on any of her reports.

Yes, there are limits. But that’s not the central insight.

The central insight is that schools are in the business of adding value to children. And the heart of that process is the weekly lesson. When every child learns, each lesson, each week, in each classroom, the school is on target, a hundred percent successful in its value-adding mission. But whenever a child doesn’t learn, whenever the week comes to an end without the lesson being absorbed, the school has failed. It didn’t have enough success factors in place to enable every child to learn every lesson.

The nation’s best educators understand this to their core. Let’s meet a few of them and see how they do it.

Dr. James Comer's Program for Elementary Schools

Dr. James Comer, now retired, had a distinguished career as a pediatric psychiatrist at the Yale-New Haven Hospital. From the late 1960s onward Dr. Comer has worked with educators in schools that serve children from underclass and poverty neighborhoods.

An African-American, James Comer was raised by parents who were short on formal schooling but long on those qualities that every child needs - character, maturity, and life skills.⁴ As a child, Comer tells an audience, he had friends who were just as clever as he was, but their paths diverged. Comer's friends stalled out, but Comer moved forward and succeeded. Why? Their homes failed to give them the guidance they needed, the kind of guidance that came naturally to Comer's parents.

In Comer's household, each family dinner unfolded as a nightly seminar in maturity. Comer's father and mother taught their children how to argue, how to debate, and how not to lose their temper. A fist fight is never the winning strategy, Comer's parents insisted. If he wanted to win a debate with his older brother, young James Comer learned, he had to put together a superior argument. In a thousand different ways, Comer's parents held their children to high standards and coached them regularly.

Now fast forward to the late 1960's. Young James Comer is now Dr. James Comer, a pediatric psychiatrist at Yale's hospital in New Haven, a town with a large African-American population. Of New Haven's many elementary schools, none is especially successful. Key success factors are missing, and Comer has an intuitive sense of what those missing success factors might be.

Dr. Comer begins to work with two of New Haven's least successful elementary schools. He doesn't focus on reading skills, or math skills, or any of those issues. What interests Comer is the challenge of reshaping the school culture so that it will include much stronger emphasis on life skills and personal support. He works with the staff to help them absorb this new success factor.

Comer tells a story to illustrate what he's looking for.

One day Johnny shows up in class, and Johnny is in a bad mood. One heck of a bad mood. He starts acting up almost immediately, quarreling with the other kids, interrupting the class, causing trouble.

What will happen next, Comer asks. In a typical school, the template calls for the teacher to order Johnny to stop misbehaving and follow the rules. If Johnny keeps acting out, the teacher is to threaten punishment. She might even pull Johnny out of the classroom and take him to the principal's office. A referral will be written. A suspension is possible. That's the template, that's the standard procedure.

Instead, in Comer's telling, the teacher approaches the unhappy child and says quietly, "What's the matter, Johnny?" And Johnny starts to tell his story. Johnny's dad is in prison, but there was good news. He was supposed to be released fairly soon, in time to be home for Christmas. Johnny was so excited about getting his dad back.

Now something has gone wrong. Johnny's dad won't be getting out of prison after all, not for a while. Which definitely means he won't be home in time for Christmas. Johnny is heartbroken. And angry.

"What if you write a letter to your father?" the teacher suggests. "You can tell him how much you love him. And how you miss him. And how glad you will be when you can see him again."

The teacher also explains that she understands his feelings, and why he's so upset, but cautions him that getting angry won't fix the problem. He needs to find another way to cope. In Comer's telling, one hears the teacher channeling the voice of Comer's mother.

“If you like,” the teacher says, “I will help you write the letter.”

What does Johnny learn? It dawns on him that the teacher isn't a hostile stranger. She's a person who cares about him. He begins to learn that being angry doesn't automatically mean that he gets to start acting up. He learns that anger is better spent on doing something constructive. These are just the lessons that Comer's parents made sure he learned every day when he was a boy of Johnny's age.

Comer's work in New Haven made a considerable difference. At the schools that used his counseling, the culture improved, the climate settled down, kids learned to pay attention, and their skills grew. As time went on, interest in Comer's approach spread, and he created the Comer School Development Program, with Yale's Medical School as its host. Comer has turned his template into a replicable approach that other schools can learn and apply.

All well and good, one might say, but is there a lasting benefit? Those who measure such things say the answer is Yes. Schools using the Comer Program do a better job than most in providing long-term benefits to children.

It is not easy, anywhere, to create an island of excellence in a larger sea of mediocrity. It is so easy for small islands to get washed away. Principals get transferred. Comer-trained teachers retire or move to other schools. The magic can dissipate as the staff disappears. Yet Comer's example is instructive, a success factor with genuine impact. Shouldn't every school want to know how to apply the wisdom of Comer's parents, and of Comer himself? As part of its success portfolio?

Siegfried Engelmann's Direct Instruction

Another of America's insightful rebels is Siegfried Engelmann, perhaps best known as the founder of Direct Instruction, a rigorous and successful method for educating elementary school children. Engelmann's recent book, *Teaching Needy Kids in our Backward System*, retells the process by which he first developed his instructional methods.

How good is Direct Instruction? It's one of the best. A detailed 2005 study, by the American Institutes for Research, compared twenty-two different school reform packages, looking for evidence of enduring benefit for the children served. The AIR study ranked two programs ahead of all the others; one of those was Direct Instruction.⁵

Engelmann entered the world of education through the side door of childhood learning research. As a young man in the 1960s, he had landed a job with a market research firm. His boss was interested in advertising that targets young children, and asked Engelmann to investigate the differences between ads children will remember and ads they won't. Would it be possible to predict an ad's effectiveness?

It was a fateful assignment. Why not affiliate myself with someone already researching childhood learning, Engelmann asked himself, and negotiated an affiliation with a nearby university researcher. It wasn't long before Engelmann's interests began to shift. He found himself far more excited by the nuts and bolts problem of when young children learn and when they don't. Soon he had taken as his career mission a cause that I would define as Lesson Learnability.

From the very outset, Engelmann intuitively understood that the ease and speed with which a child learns is linked to the clarity of the instruction being provided. The clearer the instruction, the surer the learning; the fuzzier the instruction, the weaker the learning.

With the intense determination of championship athletes, Engelmann analyzed the interactions between teacher and child, phrase by phrase, concept by concept, step by step. At each

point, he wanted to know precisely which technique for conveying an idea would click best in a child's mind.

Every time a child became confused, he treated this as a signal. Something in the presentation of the material must be flawed. Weed out the flaw, get the presentation exactly right, and the probability of confusion could often be reduced to zero. Engelmann wanted every child to learn the intended lesson and wouldn't rest till he knew precisely what was needed. It was a cause-and-effect mission for Engelmann. Find a template in which all the weaknesses have been combed out, in which all the essential success factors have been included, and children will learn at a much higher success rate. "Instruction," Engelmann concluded, "must convey only one interpretation. It must also start at a level that will predict success."

To cite one example among thousands, consider the subtle difference Engelmann noticed in two apparently identical math problems, "what is 2 plus 4?" and "what is 4 plus 2?"

A young child will look for the answer by counting forward from the first number. A child gets the right answer to the first problem by counting forward four more places, "three, four, five, six." A child gets the right answer to the second by counting forward two more places, "five, six."

If the problem is expressed as 2 plus 4, though, some children will count forward till they reach the number four, then stop. They'll say "three, four," they'll think they have the right answer, and they'll quit. But they'll be wrong, and even when the teacher points this out, they may be too confused to understand why.

If you're at that early point in the instructional process where you want each child to feel the satisfaction of getting right answers – and that's usually where you want to be – then you will ask the child "What's four plus two?" You will refrain from asking, "What's two plus four?"⁶

A fellow Rotarian, Ira Hartwell, has experience as a dog trainer. He tells a similar story about the unconscious ways we create confusion for dogs. If we use "sit down" as a command for sitting and "get down" as a command for hopping off the couch, many dogs will get confused. If we say "sit sit" as our command for sitting down, and "down down" as our command for getting down, the dog has an easier time telling the commands apart and learning to obey both.

Engelmann built Direct Instruction piece by piece, phrase by phrase, instruction by instruction, purging from his routine every phrase that might lend itself to misinterpretation. His goal - an instructional routine so clear that every child would be sure to learn, no matter what the child's starting point.

I call this Learnability. I doubt that any other single curriculum has been vetted for learnability with as much intensity as Engelmann's Direct Instruction, and children who attend schools that use Direct Instruction perform measurably better as a result, not just in the moment, but for many years after.

Rafe Esquith's Shakespeareans

In a Los Angeles neighborhood where few children are native speakers of English, Rafe Esquith has been teaching fifth grade at Hobart Elementary School for more than twenty years.⁷ Rafe, as all his children call him, is now one of America's most celebrated public school teachers. Every year, Rafe's children memorize and perform a Shakespeare play. They read all sorts of books, including *The Adventures of Huckleberry Finn*, *To Kill a Mockingbird*, and *The Autobiography of Malcolm X*. Rafe teaches his kids to play the guitar. He runs a mock economy in his classroom; students use the money they earn to rent their desks. Whenever state tests are given, Rafe's students far outperform

their peers in other classrooms. It's amazing how much more a child learns when he/she spends his/her year in a classroom that's packed with all the success factors Rafe crams in.

Rafe has written a book, *There Are No Shortcuts*. For those who prefer video, watch "The Hobart Shakespearians," a fifty minute TV program now on DVD. Half a dozen Rafe Esquith shorts can be seen on YouTube.

Part of Rafe Esquith's success arises from his own special brilliance. It is not easily replicated. But the broad themes of his template are much the same as one finds with other great educators. Care about the kids so visibly that every single child becomes motivated. Take the time to teach every child to mastery, don't blow off the kids who have a harder time keeping up. Use longer school days – Rafe's school day starts an hour or more ahead of everyone else's, and runs at least an hour or two longer, but the kids show up faithfully because he's such an exciting teacher.

Twice a year he takes his class on an out-of-town trip. His trips are an immersion experience in successful middle class America. The children practice manners. They experience the world outside Hobart Elementary's local low income neighborhood. They become excited about their own potential. Rafe's rules are simple: "Be nice. Work hard." "There are no shortcuts." Rafe's wisdom is now part of KIPP's wisdom.

In one telling sequence, the video documentary shows Rafe taking three children aside in the back of the classroom. He gives them a low key, offline talk. The kids had broken an important rule the day before and needed discipline, but Rafe didn't want to embarrass them by lecturing them in front of the entire class. He tells them they've made a bad mistake, he warns them they'll get in serious trouble if they do it again, but he wants them to know he still believes in them and he's still pulling for them.

Why do kids in Rafe's class care if they get disciplined? Because a Rafe Esquith class does so many fun things. Break the rules, and Rafe might not let you take part. The more exciting the culture of the classroom, the greater the motivation to play ball, work hard, and earn the right to stay in the game.

Michael Feinberg & Dave Levin's KIPP Academies

KIPP, the Knowledge Is Power Program, was launched in the early 1990s by Michael Feinberg and David Levin, when they were young and relatively inexperienced fifth grade teachers in Houston. Each had waved good-bye to his second batch of fifth graders and wished them well in middle school. And then their kids started calling back. Fifth grade had been so cool, the kids said, but their middle school experience was terrible.⁸

This was not the outcome Feinberg and Levin had wanted when they joined Teach for America and then headed into the Houston public school system. Feinberg had graduated from the University of Pennsylvania, Levin from Yale. They wanted to make a real difference for children; they weren't about to let the gains they had worked so hard to achieve be washed away by an indifferent and incompetent middle school.

From their own experiences as teachers, their failures as well as their successes, Feinberg and Levin had developed a number of hypotheses about what was missing in a typical public school, about the success factors essential to the creation of a truly exceptional school. They pulled an all-nighter, drafted a plan for the middle school of their dreams, and began to shop it around.

It wasn't easy, but eventually they received their go-ahead. If you can recruit enough parents, they were told, you will be allowed to launch your new charter school. Feinberg and Levin visited

homes, pitched their dream, signed up parents, and, the following fall, opened the doors of the nation's first KIPP middle school. Its new fifth graders were almost wholly minority children from poverty backgrounds.

Their newly-launched school worked well. With each succeeding year they added another grade, Grade Six, Grade Seven, Grade Eight, till they'd filled out all four years. After a bit David Levin left Houston to open a second KIPP Academy in the Bronx, his hometown. These first two KIPP schools succeeded beyond anyone's expectations. KIPP's eighth-grade graduates won scholarships to some of the nation's best prep schools. *Sixty Minutes* featured KIPP as a glowing triumph. Don and Doris Fisher, owners of The Gap clothing chain, threw their support behind Feinberg and Levin, and put up enough funding to create a KIPP foundation. Now there are several dozen KIPP schools scattered about the US. Not every KIPP school hits a home run, perhaps, but as a group KIPP schools significantly outperform traditional middle schools.

KIPP is Exhibit A for the success factor hypothesis. Put enough success factors into a school, all at the same time, and the probability of success rises markedly for all students. Some of the KIPP success themes address motivation, some address learnability, some address teaching, and some address time.

Everything begins with motivation.

KIPP creates an emphatic culture of being "KIPPsters." From the very first day, children hear reminders of the year that they'll be entering college. A fifth grader entering KIPP in the fall of 2008, for example, will be told he'll be entering college in 2016. He'll hear it over and over again, "you're the class of 2016, you'll be entering college in 2016." Each classroom in the school is given a name, and the name is taken from the college that its teacher graduated from.

A student who wants to attend KIPP has to sign a contract. The parent signs a parallel contract, and so does the teacher. The student commits to be nice and work hard; the parent/caregiver commits to checking on daily homework; the teacher commits to do everything she or he can to make sure the student succeeds. Every KIPP teacher carries a cell phone; if a student stumbles while doing homework, he or she is expected to call the teacher and ask for help, no matter what time in the evening it may be.

"When the kids come to school there are 101 daily challenges that can get in the way of their learning and succeeding in school and in life," Feinberg notes. "Our perspective is that if there are 101 daily challenges, we need 101 daily solutions. We look to widen our sphere of influence so that whatever challenges KIPP's students and families face, either we can help them directly, or we can find others in the community who can."⁹ It's another way of restating the core success hypothesis – if you have enough success factors, 101 solutions to 101 daily problems – you can enlist every child in learning.

KIPP's approach to discipline is a vital ingredient in its success. It creates one entertaining activity after another – think a rich diet of field trips – that all the kids enjoy. If a child breaks the rules, though, and KIPP will keep that child in school the next time there's a field trip, or otherwise deny him the privilege of participating in something special. Being kept out of something you really want to do? Now there's a punishment that sinks in. Kids work hard not to get into trouble again. Who wants to be left out of the fun stuff?

Learnability is a piece of KIPP's success. I have mentioned the multiplication table rap. In that and a thousand other ways, KIPP strives to make its lessons interesting.

Learning time is another essential ingredient in KIPP's package of success factors. KIPPsters spend sixty percent more time in school than their public school counterparts.

Not every child wants a longer school day; not every parent is willing to give the kind of support that KIPP requires. But KIPP schools as a whole outperform their public school rivals by quite a margin. A better template makes a big difference in the lives of children.

Richard Esparza's Granger High School

Richard Esparza for nearly a decade was the principal of Granger High School, in the south central area of Washington State, about forty miles north of the Columbia River. This small district, with but one elementary school, one middle school, and one high school, primarily serves a low income Hispanic population. Before Esparza arrived, Granger had been a struggling school – high dropout rates, low parental involvement rates, worrisome rate of teen crime. Richard Esparza's leadership has given the school a huge push forward.

In Esparza's view, the typical high school is designed to fail. There's no one assigned to help a struggling student except the guidance counselor, and the typical guidance counselor may have four hundred different students to look after. Who gets much face time with a caring adult when the adult has four hundred children to look after?¹⁰

Esparza wanted Granger to offer a different and better answer. Every child needs a push from an adult mentor, he knew, especially when the going gets difficult. Girls run into girl difficulties, boys run into boy difficulties. All children need adult mentors. He knew he needed a new way to meet the need.

Esparza decided every single adult with teaching credentials at Granger High would become a mentor, and Esparza put his own name on the list too. This became his in-school mentor list. He assigned eighteen to twenty kids to each mentor, to make sure that every single child at Granger High would have a personal relationship with a caring adult. Mentors were generally expected to stick with the same kids all the way through to graduation.

Esparza wanted each mentor to be up to the minute on his or her kids. Every teacher, in every class, was expected to prepare regular updates on all students, and forward those updates to the appropriate mentors. If a child begins to fall behind, the mentor will know, almost immediately.

In a typical school, Esparza points out, a teacher with five class periods might face 150 different children. Thirty of those kids might be at risk. What is the teacher to do? Helping thirty different at risk children is well beyond any teacher's capacity.

On the other hand, suppose a mentor has twenty children, of which only four or five are on the edge. Now the numbers are manageable. The mentor isn't overloaded. And every child who is in difficulty has a caring adult who can give help.

In Granger High School, students and mentors meet regularly. Short class meetings, just a bit longer than traditional home room, keep students in regular contact with their mentors.

But it isn't enough for a mentor to meet just with her students. Esparza expects each mentor to meet with the student's parents/caregivers as well. The caregiver is especially important. In the population Granger serves, as many as seventy-five percent of the children will live with someone other than a regular parent.

Esparza's standards are high. One mentor-caregiver meeting a year isn't enough. He wants five meetings a year. For every student. No exceptions. The student is expected to take the lead in these meetings, and explain to the caregiver/parent "These are my goals" for reading, math, science, and so on.

Not every teacher at Granger wanted to take part. If a teacher comes to me and says – I don't

want to be a social worker, I just want to teach my subject – I nod and agree, Esparza says. And I tell the teacher, I will be happy to give you a recommendation to a district that shares your philosophy. For Esparza’s approach to make a difference, he needs a teaching staff that buys in.

In Esparza’s approach, the success premise for children isn’t difficult to figure out. Learning depends on motivation, and motivation depends on relationships and support. Esparza invests great energy in creating those relationships and that spirit of support.

He adds other motivational supports as well. What’s it cost to drop out of school? Esparza’s answer - \$400,000 in total lifetime income. Can he get students to visualize \$400,000? Yes. He created a fake \$20 bill, printed up 20,000 of them, and keeps the entire \$400,000 in play money in a box in his office. On the front, it says PLAY MONEY but looks something like a twenty dollar bill. On the back, it is entirely blank except for the phrase “Honor Your Family and Yourself By Valuing Your Education.” Is a student discouraged about school? “Dig into \$400,000,” Esparza invites him. “That’s what you’ll lose if you drop out.” It makes an impact. The website for the Granger School District is rightly proud of its results. “Over 96% of our parents attend our student-led parent/teacher/student conferences. The district’s graduation rate has risen to an all-time high of over 92%.”

June Eressy’s University Park Campus School

June Eressy heads the University Park Campus School in Worcester, Massachusetts, a grade 7 through 12 public school with approximately 200 students. Seventy percent of her students are from poverty families; at best, they read at a 5th grade level when they enter. Yet all of them pass the state’s mandatory 10th grade English and Math tests (MCAS). All of them graduate.¹¹

In the mid-1990’s, Clark University approached the Worcester public school system with an idea for arresting neighborhood decline. Perhaps a first-rate school in the neighborhood that adjoined Clark could become a force for neighborhood stability. As an incentive, Clark guaranteed free tuition to any high school graduate who had lived in the neighborhood for at least five years.

And so the University Park Campus School was born. It was to be a seven-through-twelve junior-senior high school. Its first year would be grade seven only; with each succeeding year another grade would be added, a pattern that mirrors a KIPP startup. School organizers were given little to work with. The school building was old, cramped, small. And their first round of incoming students? Even the best entering students read only at a fifth grade level.

In these early days, June Eressy was startup team’s reading specialist. They had no roadmap, only a burning and scary question – How on earth do we make this work!?

Piece by piece, they began to assemble what has turned out to be a winning formula. It isn’t just one or two things. Instinctively they sensed a core truth – the more success factors UCPS has, the better its chance of success with every student.

They pared the curriculum down to the bare minimum – no electives – and focused primarily on reading and math. Their goal for seventh and eighth grade was simple – By ninth grade, every student must be ready for on-grade high school work. And the goal for the high school years was similar – have every student ready for post-secondary work by the end of twelfth grade. Not semi-ready. Truly ready. No excuses, no compromises.

In seventh grade, students spent the full day on remedial reading and remedial writing. In eighth grade, students spent two and a half hours every day on math, to prepare them for on-grade high school math the following year.

At the heart of the school culture was a determined commitment to every student, coupled with high and unyielding expectations. You will succeed. You will work hard, you will have our support, and you will succeed. They let no one off the hook.

When Eressy describes her school, one theme stands out above all others – a tenacious emphasis on writing. Every day. Every classroom. She calls it “low stakes writing.” Each student has to fill a page. It won’t be handed in and it won’t be graded, but the teacher will look at it. Making corrections waits till the students have become comfortable as writers.

Students have a fear of writing, Eressy says, because they know how easy it is to make technical mistakes and get marked down for their errors. At UCPS they wanted to get beyond that fear. They stressed informal rather than formal, unstructured rather than structured, your own voice rather than someone else’s voice, frequent writing rather than infrequent. Low stakes. Personal. Enjoyable. Writing as a way of exercising one’s mental muscles. The more writing, the more mental exercise; the more mental exercise; the stronger one’s thinking skills.

All classes were expected to emphasize writing – science and math were to be as focused on writing as any other. As the school’s writing specialist, Eressy helped subject matter teachers develop strategies for adding writing to each day’s class experience.

Why does this make sense? What James Comer’s parents sought to achieve through verbal argument at the family dinner table, Eressy strives to achieve by insisting on nearly non-stop writing in every subject and every class period. Practice, practice, practice.

Another remarkable element in the UPCS mix is the emphasis on teamwork among its teachers. Once a week, on Wednesday mornings, the district’s itinerant specialty teachers rotate into UPCS and take over the school. Music. Art. Physical Education. Relieved of their students, the regular teachers gather face to face in Wednesday morning staff meetings.

UCPS is an observation-rich environment. Formal observations of each teacher are frequent, and known as “Rounds,” as in hospital rounds. Informal observation is frequent, too. A teacher’s planning period is typically spent sitting quietly at the back of another teacher’s classroom. It’s work time, of course, but informal observation is a natural side effect.

With all this observation under their belts, teachers spend much of the Wednesday staff meeting on teacher to teacher coaching. ‘Here’s what I observed; here’s how you might reach Johnny, here’s how you might reach Natasha.’ Superb coaching of children begins with staff meetings in which teachers give frequent coaching to each other.

Comer. Engelmann. Esquith. Feinberg. Levin. Esparza. Eressy. Each educator is a trail-breaker on the central issue of American education. What does it take to create a classroom so good that every child learns? A school so good that every child learns? (Readers who want to follow these trails further will appreciate David Whitman’s *Sweating the Small Stuff* and Jay Mathews’ *Work Hard. Be Nice.*)

The same themes recur in all these stories. Pack the school with so many success factors that every child learns. Pay attention to motivation, learnability, teacher coaching, and time on task.

If every child is motivated, the teacher is more than halfway there. Comer creates motivation by teaching schools to shift from control through rules, to control through empathy. Esquith creates motivation with excitement. Feinberg and Levin create motivation with a hundred and one different ways of pumping students up and taking care of problems. Esparza creates motivation with student-teacher-parent relationships and friendship.

Lessons must also be learnable. Engelmann creates learnability by vetting every phrase of his

instructional routine for its clarity and absorbability. Eressy supports learning by taking students where they are, as fifth grade readers or worse, and moving forward from there. Then she emphasizes writing, writing, writing, as a way of honing a child's ability to learn and turn that learning into something more. Esquith and Feinberg and Levin create learnability with rap chants, drama, and excitement.

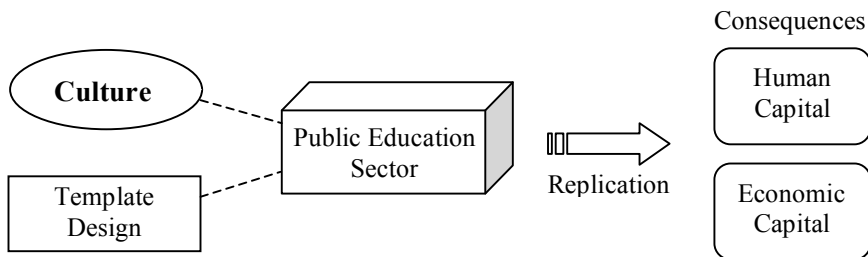
Children must receive the coaching they need. Eressy's teachers have so many opportunities to observe one another that they become masters at giving feedback and applying what they learn from one another to their work with their students. Esparza's mentors get to know students well enough to provide individualized coaching.

And children must have time to learn. KIPP's school days are long. Saturday classes are frequent. The school year is longer. Esquith's classes begin well before the starting bell and run long after the closing bell. The more time spent on learning, the more children will achieve.

If we know that student learning depends on motivation, and learnability, and good coaching, and sufficient time, and; if we know that schools rich in success factors outperform schools that are lean on success factors, then we know the central ingredients of success. The scientific method reminds us that success isn't an accident. Put enough success factors into the educational mix and the probability of success rises dramatically.

Conversely, in a cause and effect world, when schools under-deliver on success factors and over-deliver on failure factors, students simply won't succeed as they should. The national dropout number - 800,000 a year – tells us that we are not good, as a nation, at filling our schools with success factors. The national incarceration number – 2.2 million Americans in prison, mostly dropouts – underlines the same point. Poorly chosen templates guarantee disastrously high yield losses.

The Culture of Public Education



The culture of public education plays a critical role in perpetuating current practices and current outcomes. One cannot effectively critique the culture, though, unless one first understands what true success looks like, which is why this chapter addressed template design issues first.

Before taking on the issue of culture, I must also acknowledge other key factors that shape the public education sector and influence the results it achieves.

Its structural framework is extraordinary – more than fifteen thousand local school districts, many with their own taxing authority, but not all. Fifteen thousand plus school boards, all with a vested interest in retaining the authority they have long possessed.

The role confusion imposed on superintendents is a wonder to behold. Superintendents are expected to please teachers, and taxpayers, and parents, and regulators, all at the same time. A

superintendent is both a Seller of services, as the leader of the teaching staff, and a Buyer of services, as the individual charged with spending taxpayer funds as prudently as possible. It is a perfect setting for blame game politics, as taxpayers blame teachers, teachers blame taxpayers and parents, parents blame taxpayers and teachers, and regulators blame pretty much everyone.

In a blame game environment, some vital reforms become almost impossible. Teachers blame taxpayers and legislatures for not compensating them properly. Parents and taxpayers blame teachers for using tenure provisions in labor agreements to protect the jobs of even the most incompetent teachers. If parents and taxpayers can't get quality, they won't give raises. If teachers can't get appreciation, they'll be darned if they'll give up what little protection their contracts give them. So in a contest of shortsighted taxpayers and shortsighted teachers, everyone gets shortchanged, especially our children.

The legislatures of our nation love to create educational mandates, even if they have little taste for funding them. Schools spend at least twice as much per capita on special education students as they do for mainstream students, and in severe cases they spend tens of thousands of dollars a year for a single child.

Certification laws seek to assure competence in every classroom, but they also produce a highly inbred culture. No one who has ever done business process reengineering in the private sector is likely to be recruited into anyone's school system, even though paradigm shift leadership is one of the most serious deficiencies in all of public education. Certification guarantees not only training, but think-alike training.

Sports leagues have acquired a powerful hold on the after-school lives of children. Only a foolhardy superintendent will suggest that time spent on studies might be more important than time spent on soccer or lacrosse.

All those factors need to be addressed in due course. America cannot become a truly healthy civilization until our public schools are at the top of their game. Some of the reforms ahead will not be easy. Still, there is one area where we can begin, today, to make a difference. We can begin to reorient the culture of public education. It won't be easy, but it isn't as hard as one might think.

Let's first look at one of the insidious elements of public education culture – what I refer to as the Praise Culture of public education.

It has such an innocent beginning. Teachers expect praise for all the hard work they do, the long hours they put in, the emotional challenges they endure in the classroom. Central office administrators expect praise for caring about the children, the teachers, the schools. Principals expect praise for keeping their schools afloat under trying circumstances. Superintendents expect praise for being in the line of fire and moving their districts forward, inch by inch.

Who can quarrel with any of that? Of course our teachers and other educators work hard. Of course they deserve our praise.

Praise for our educators then becomes a courtesy norm. If they are educators, recognizing their hard work becomes an expected courtesy. By implication, raising issues of systemic failure is improper because it is discourteous. Praiseworthy people are offended if one is to suggest that the nation's high dropout rate is somehow the responsibility of the nation's educators and the public education sector they serve. To be a critic is to be rude. To be rude is to be a rule-breaker. School officials are in the business of disciplining rule-breakers. Critics are not to be listened to for their feedback, but to be disciplined for their offense against the courtesies one is expected to display in a praise culture.

The praise culture of public education is adept at capturing school board members and

drawing them into its orbit. Those who serve on school boards enjoy praise too. An implicit deal is cut, so subtle that board members often don't realize how thoroughly they've been captured. In return for accepting the courtesies of the praise culture, and refraining from asking the hard questions, board members in turn get to enjoy high prestige. Central office educators get political cover for their mediocrity, board members gets prestige for staying away from the impolite question. The praise culture wins again.

Leaders in a praise culture school district expect parents to play the enabler role. Just as an alcoholic needs an enabler for her addiction, superintendents and board members in a praise culture look to parents as their enablers. "Since we deserve praise, it is the task of parents to provide praise."

One of the damaging consequences of the praise culture is that it fosters systemic dishonesty about yield and yield losses. Why tell people the truth about the high dropout rates when the truth will lead to any number of discourteous and impolite questions? Why not give them an airbrushed figure that will allow the praise culture to flourish in peace?

An honest dropout rate tells us the percentage of students in a graduating class who left school before earning their diploma. Dropouts go in the numerator, the total size of the starting ninth grade cohort goes in the denominator. If 1000 children start ninth grade in the fall of 2010, 300 drop out along the way, leaving only 700 to graduate in the spring of 2014, the dropout rate is 30%.

The airbrushed praise culture dropout rate, though, uses as its numerator the 300 children who dropped out of school this year – some as freshmen, some as sophomores, some as juniors, and a few as seniors. And it divides this numerator by the size of all the classes enrolled – all the 9th, 10th, 11th, and 12th graders at the same time. 3400 students, perhaps, for a reported dropout rate of 300 divided by 3400, or 8.8%, not 30%. A reported dropout rate of 8.8% sounds much less serious than the actual dropout rate of 30%.

It's a very slick trick. Divide one cohort's worth of dropouts, 300 in this example, by four cohorts of enrolled students, 3400 in this example, and one can water down the reported yield loss quite handsomely. It has been the nationwide custom to airbrush dropout rates using this scam, one that only now is starting to crumble as the public education sector attracts a rising number of independent analysts.

There are four simple steps we can take, here in America, to interrupt the prevailing culture of public education and begin the process of redesign and reinvention.

1. We can outlaw the airbrush method for calculating and reporting dropout rates. We can write into law a requirement that every school district must report its dropout rate honestly, cohort by cohort, graduating class by graduating class.

2. We can stimulate a dialogue on the four key requirements of a successful classroom – motivation, learnability, coaching, and time. Such dialogues could be local, or with the right sponsors, such a dialogue could be national, with three million teachers all invited to take part. Participating teachers could be invited to offer their ideas on four simple questions.

- What does it take to create schools in which every child is motivated?
- What does it take to create lessons so good that every child can grasp the lesson?
- What does it take for every teacher to become a successful coach for each student?
- What's the right amount of time – in the day, the week, and the year – to make sure every student learns?

This suggestion rests on a simple assumption. If we respect our teachers, as we should, we

honor them by asking for their thoughts on the deepest and most important issue we face – how to create classrooms so rich with success factors that every child learns?

I have no idea how many teachers will respond to such an invitation. Suppose only five percent take the time to express themselves, and share their good ideas with their peers. We'd have suggestions from 150,000 teachers, and in that pool of 150,000 ideas, we'd have a wealth of possibilities to choose from. Unleash even a fraction of that creativity in our classrooms, and our schools could really begin to go somewhere.

Dialogue mechanics are both simple and sophisticated. Everyone participates raw ideas. Skilled volunteers sift through the suggestions and organize them thematically. Every suggestion is given an on-line home, with all suggestions organized under thematic headings. Teachers can then go back and forth with blogs on the points that are of greatest interest. No decisions are made; success is defined as maximizing the universe of good ideas.

But the deeper point is even more important. Schools underperform because the people in education spend far too little time discussing the central issues, and far too much time on the secondary issues. If public education is to change for the better, the amount of time educators spend on the central issues needs to rise. Put everyone in the habit of thinking about value-add success and the key factors that cause success, and we will have the conversation we need, even if everything else stays the same.

3. Use the same dialogue approach to solicit views on the weaknesses of the existing culture in public education. Is it a praise culture? Is it a gotcha culture? Is it simply a cover-your-ass culture? There will be many points of view. And then ask the follow-on question. What's the ideal? What would a truly healthy culture look like? Give teachers a way to discuss these issues frankly, and if necessary anonymously, and we as a nation will have a chance to rework the culture of public education by the simple tactic of calling forth the best energies of good people all over the country.

4. Finally, we can never expect dramatic change in public education until we have at least half a dozen truly successful districts to brag about and learn from. It's nice that Rafe Esquith runs a great classroom, better still that June Eressy leads a particularly successful school, and even better that Dave Levin and Mike Feinberg have been able, with an enormous boost from Sixty Minutes and the Fishers, to create a growing network of KIPP academies. But as a nation we still lack the Whole District Success Story we need.

So let's put serious money on the table and hold a contest. Offer major awards to 15 districts willing to invest the next decade in creating classrooms and schools in which every child learns. Five awards should go to large districts, five more to medium-sized districts, and five to small districts. Each district that applies would have to describe its strategy for emulating the insights of pioneers like Eressy and Feinberg and Levin and the others. Winning districts would be permitted to set aside many of the regulations that now bind them; the more freedom they have, the better.

Not every award winner will succeed to the level that our best educators have already achieved. But some will, and once they have, everyone else will finally see what it means to deliver the goods in the public education sector.

Yes, the inertia in public education is great. But even though three million teachers work in public schools, we are all just folks. Give us better ideas, and we can become more effective as people. Push organizations toward a healthier culture, and they will bring out more of the potential

in the people they already have. We have a big puzzle, but it gets much easier to address when we teach ourselves to focus on what it takes to add value in a classroom. What DOES it take to motivate Johnny? Our wisest educators already know. It is time for the rest of us to listen. Unlock what they know. And grow.

¹ Author's analysis of data at <http://nces.ed.gov/ccd>

² McKinsey & Company. "The Economic Impact of the Achievement Gap in America's Schools. April 2009. Page 7.

³ McKinsey & Company. "Detailed finding on the economic impact of the achievement gap in America's schools." April 2009. Page 83.

⁴ Dr. James Comer, July 15, 2006. Public speech at Pascal Auditorium, Anne Arundel Community College, Maryland.

⁵ American Institutes for Research, <http://www.air.org/news/documents/Release200511csr.htm>

⁶ Siegfried Engelmann. *Teaching Needy Kids in our Backward System*. 2007. Chapter 1.

⁷ Esquith discussion based on: Rafe Esquith. *There Are No Shortcuts*. Anchor, 2004; Also draws from *The Hobart Shakespearians*, Mel Stuart Documentary, 2004, available from Netflix.

⁸ KIPP discussion based on 60 Minutes profile of KIPP, September 19, 1999; Jay Mathews *Work Hard. Be Nice*. 2009; KIPP website, www.kipp.org.

⁹ From the Charles Bronfman Prize 2009 Press Release, <http://www.thecharlesbronfmanprize.com/pressrelease2009.php>

¹⁰ Material in this section is from Richard Esparza's talk at an event hosted by the Alliance for Excellent Education, September 14, 2006. Streaming video at http://www.all4ed.org/events/no_secret

¹¹ Material in this section is from June Eressy's talk at an event hosted by the Alliance for Excellent Education, September 14, 2005. Streaming audio at http://www.all4ed.org/events/HS_UPCS