The State of Edtech
How Schools Are Changing: Part 4 of our Yearlong Series

TABLE OF CONTENT

Introduction ................................................................. 5
The Elements of a School Redesign ................................. 7
Peeking Inside Schools and Districts ................................. 8
  • Why do we want to change teaching and learning? ........ 9
  • What do these changes look like in practice? ............. 18
  • What resources do we need to make this happen? ....... 40
  • How do we prepare our community for redesign? ...... 61
  • How do we implement these changes? ..................... 62
  • How do we scale and improve? ............................. 63
Conclusion ................................................................. 73
Methodology .............................................................. 75
As a nation, we obsess about education. Look at *A Nation at Risk*’s 1984 critique that public education would not bring about a competitive economy. Or maybe *Eisenhower’s National Defense Education Act*, aimed at increasing science education for national safety in 1958. Or go back to 1930 to *Eleanor Roosevelt’s* speech in Hyde Park when she called for an improvement in education to build better citizens.

As more and more people chime in—whether they be teachers, administrators, business people, entrepreneurs, politicians, foundations, social workers or technologists—our conversations over what we teach, when, why and how we teach it, have become more polarized. Each group brings its own views on how teaching and learning has and should evolve.

Each group of people looking to education to solve problems or serve as a mechanism of change is looking at the world through their own lens. Maybe it’s political, economical, justice-oriented or relationship-focused. Each person uses their lens to define what teaching and learning should look like.
This project invites you to try on different lenses when looking at K-12 education in the US. We will give you perspectives from different stakeholders on the trends and forces shaping how money is invested, how tools are created and how schools are designing teaching and learning experiences.

We all have a huge stake in education, as parents, as community members and as learners ourselves. However, the only way we can collectively move education forward is if we start trading lenses and begin building a better understanding of how other communities see teaching and learning.

Please share and take the opportunity to “regrind your conceptual lenses” to gain a different perspective on the evolution of teaching and learning.

A Message from AT&T

Technology is fundamentally altering education by removing barriers so that everyone—regardless of age, gender, income or zip code—has the opportunity to make their dreams a reality. AT&T is helping to drive this change by developing tools for anytime, anywhere learning and supporting change-makers in education. By gathering and analyzing information about the current state of ed-tech, we can create and support the most effective solutions—and ensure other companies are doing the same. Through our signature education initiative AT&T Aspire, we are providing funding and collaborating with EdSurge to support “The State of EdTech” research.
How Schools Are Changing

Get Started

And over the past one hundred years, the ideal school model has been questioned and shaped by different movements and educators.

Our hyperfast, super personalized global world has inspired educators to try fresh or reinvigorated school models.

Changing a school model demands educators use many building blocks; these shape the schools’ and the students’ experiences.

These building blocks can be grouped into six areas:

1. Why do we want to change teaching and learning?
2. Implementation
3. Scale & Improvement
4. Resources Needed
5. Community Engagement
6. Changes in Practice

By thoughtfully selecting which blocks matter to a community, educators can help build richer experiences for their students.
Over the last 150 years, the notion of what a school should be has evolved. From John Dewey’s one-room schoolhouse and the industrialized “factory model” to the open classrooms movement of the 1970s, schools have oftentimes tried to incorporate the latest ideas in education—some that proved to be successful and others less so.

Changing demographics and the widespread use of technology have forced teachers, administrators and parents to readjust for a school population with dramatically different needs. For example, the number of English language learners (ELLs) attending American K–12 schools has continued to rise: In the 2013–14 school year, the number of ELLs had reached a staggering 9.3 percent. In his seminal article Digital Natives, Digital Immigrants, the emergence of what author Marc Prensky calls “digital natives” has seen educators grapple with a generation of students that access and process information in radically new ways.

Creating a powerful learning environment, tuned to students’ needs, is challenging—and demands educators employ many elements or building blocks.
Chapter 3: Introduction

Each element has a tremendous impact on the learning experience for students, staff and families, and every school handles those building blocks differently. So, EdSurge has identified 19 of them—from “edtech selection” and “professional development” to “change management” and “infrastructure”—along with more than a dozen schools that are thoughtfully employing these building blocks to meet the unique needs of their students.

Yes, technology plays an important role in today’s classrooms. While the pace of change has accelerated, however, one constant remains the same: Good teachers are critical to delivering an effective learning experience.

From a rural school district delivering on a vision of self-paced learning, to a charter system incorporating social-emotional learning into its curriculum, to a group of Los Angeles administrators who failed big before creating a far more supportive, blended environment for their students, these stories give a taste of how schools are changing, as well as the role technology is—and isn’t—playing in that change.

SCHOOLS SHIFTING FOCUS
by AT&T

Many schools are transforming their approaches in light of the exciting new learning tools available. The Momentous School is Dallas, TX takes a holistic approach to education, guiding students in academics and social emotional health. In the last several years, the Momentous staff has shifted their teaching methods to incorporate technology that allows for greater differentiation in instruction. AT&T collaborated with Momentous to power this shift by providing tablets, learning software, and better internet infrastructure. These tech solutions have helped teachers to “meet students where they are” and provide enhanced learning experiences both inside and outside the classroom.
THE ELEMENTS OF A SCHOOL REDESIGN

When it comes to redesigning schools, there are dozens of elements schools can play with to reconfigure and reshape what the concept of “school” looks like.
No school or district could—or should—change every building block simultaneously. But after traveling all over the country, talking to educators and hearing their stories, EdSurge came across 14 schools and districts that are each excelling at one to two elements at a time. Looking for some inspiration around professional development, change management or infrastructure? Read these stories stories of excellence and progress.

Why do we want to change teaching and learning?
Turning Ideas Into Action .................................................. 10
Knowing When You’re Ready to Go Blended ...................... 14

What do these changes look like in practice?
When Change (Management) is a Constant ....................... 19
Making Social-Emotional Learning Core .......................... 23
Redesigning a Better Student Experience ......................... 27
Where Students and Teachers Own The Data .................... 30
Redesigning a Better Student Experience ......................... 27
Where Students Decide When and What ......................... 35

What resources do we need to make this happen?
Putting WiFi and Infrastructure First .............................. 41
When Students Buy the Edtech ........................................ 45
Better Edtech Budgeting ............................................... 49
Shifting Professional Development Models ...................... 53
Reaching Every Stakeholder ......................................... 57

How do we prepare our community for redesign?
Shifting Professional Development Models ...................... 53
Reaching Every Stakeholder ......................................... 57

How do we implement these changes?
Turning Ideas Into Action .................................................. 10
When Change (Management) is a Constant ....................... 19

How do we implement these changes?
Reflecting, Iterating, Improving ...................................... 64
Share and Tell: Tweet All About It ................................. 68
Why do we want to change teaching and learning?

TAYLOR COUNTY PS
Turning Ideas Into Action

VISION

ASPIRE PS
Knowing When You’re Ready to Go Blended

ASSESSING READINESS
A strong vision for education is a necessary—but not sufficient—ingredient for district transformation. Another important one is early adopter teachers who research and implement the plans for the district. It was in the thick of implementation that Roger Cook, Superintendent of Taylor County Public Schools, and his district began to construct a path for teachers to learn about personalized learning, much like students were doing.

When Cook was hired in 2009, the Campbellsville, Kentucky-based Taylor County Public School district was in need of some change. The district had been labeled “Needs Improvement” by the state of Kentucky. Some teachers could see that there was room for growth.

“We were all teaching traditionally. We were all up front, lecturing with the ‘sage on the stage’ idea,” recalls Sarah Hayes, who was a sixth grade math teacher at Taylor County Middle School at the time.

Before coming to Taylor County, Cook had served as the superintendent for the Russellville Independent School district in Kentucky from 2005-2009. There, he had spearheaded a virtual academy program that allowed students to progress through the curriculum at their own pace.

When he came to Taylor County, Cook immediately began talking about how to give students content that was “right for them.” Cook also promised that teachers who decided to pilot this type of personalized program in their classrooms would have all the technology and IT support they needed.
Hayes and Jessica McCubbin, a current assistant principal who was an eighth grade math teacher at that time, volunteered to pilot Cook’s vision. But they also advised Cook that in order for the program to succeed, teachers would need some major research and professional development. Then, they asked when Cook wanted to see this new type of teaching and learning in place.

“He said, ‘When this school year starts,’” Hayes laughs as she explains. “It was July. We had two months.”

FIGURING OUT WHAT WOULDN’T WORK IN TAYLOR COUNTY

Hayes and McCubbin knew that implementing Cook’s vision would involve far more than bringing in a few tech platforms. The district had already invested heavily in tech; teachers involved in the pilot would have enough devices for every student, screencasting equipment and headphones. But just because the tools were available didn’t mean that teachers were prepared to make the jump.

Hayes and McCubbin spent the summer scouring the Internet to find approaches that would help them fit Cook’s vision to Taylor County, making learning personalized and independent of students’ chronological ages. That meant some popular approaches would not work.

They realized, for instance, that “flipping the classroom” wasn’t the approach they needed. “In a flipped classroom, all the kids go home and watch the same video lesson,” Hayes says. “Then, they come back to the classroom and the teacher is freed up to help them.” But performance-based education means students aren’t bound by their chronological age. They have access to curricula at and above their traditional grade-level. After they learn and master content, they move on—not when the teacher or the rest of the class is ready.

Though flipping the classroom was what Cook originally described, Hayes and McCubbin realized that “self-paced” was the term they need to start using with him—and with other teachers.

SUPPORTING IMPLEMENTATION BY OFFERING OPTIONS

By the time September 2009 rolled around, Hayes, McCubbin and a fifth grade math teacher were ready to pilot self-paced classrooms in Taylor County Middle School (TCMS), specifically in the subject of fifth and sixth grade math. Every year, a few more teachers were added to that original three. “In 2010, we got seventh grade, and then eighth grade the next year. We were trying to make a fluid path for the kids,” Hayes explains.
But among teachers elsewhere in the district outside of TCMS, there was reluctance to buy into the new superintendent’s push for self-paced classes. The truth is, just as students do, teachers need choices in how they teach and learn.

So, Cook and his early adopter team widened their vision to acknowledge that both teachers and students choose different types of learning environments; both need personalized options to be at their very best. “Cook decided that people needed choices,” Hayes says. “Self-paced could be one option, but not the only option.”

Back at Russellville, Cook had created a “Wheel of Learning” to describe six instructional designs as options, and around 2010, he decided to repurpose it in Taylor County. The options were: traditional, self-paced, project-based, peer-led, virtual, and Cardinal Academy, a college-like program that allows advanced students freedom in class schedule.

Starting in 2011, McCubbin took the lead on piloting a program where Taylor County teachers could request to teach classes that follow specific models on the “Wheel of Learning,” based on the content of their class and their preferred delivery style. Meanwhile, students could opt in to particular spokes, working with teachers to determine the one or more learning options that work best for them. In many cases, teachers and students have schedules that cross over to many spokes of the wheel during the day.

Opportunities to personalize learning for all students means allowing teachers to think way outside the proverbial box.

Roger Cook, Superintendent
Technology, while not the focus, made it possible. Activities vary for each learning style; in self-paced classes, for example, there’s partner work, peer coaching, small teacher-led groups, projects, games, and activities, as well as minimum weekly goals. As Hayes describes it, prior to the introduction of the Wheel, teachers would teach from the board every day in class. But now, teachers began making their own instructional videos, and supplementing with Common Core-aligned materials from Khan Academy and other online resources that met the needs of each wheel spoke.

To make the transition easier, teachers would retain some of the older resources they had, but rehash them in new ways.

“I used to use PowerPoints, and that was it,” says Hayes. “But now, I was recording over them, addressing misconceptions, and students could watch the videos at home and before an exam.”

NO MORE DROPOUTS

While Cook’s vision of a district modeled on performance-based education hasn’t changed, the means to achieving that goal became more fluid and flexible in response to teachers’ hesitations and the research conducted by Hayes and McCubbin. “Opportunities to personalize learning for all students means allowing teachers to think way outside the proverbial box,” Cook wrote back in 2014.

Since starting this process, every teacher at Taylor has adopted at least one spoke of the wheel other than “traditional.” Self-paced has been a bit of a slower adoption than the other spokes—approximately 30 Taylor County teachers do it—but Hayes is optimistic, as she has moved into a role as the district’s technology integration specialist. “My job now is to evangelize and help educators transition,” she says.

Because of Cook’s vision of offering students varying learning options, Taylor County’s dropout rate has fallen to zero percent. Many students now finish their course requirements by their junior year of high school. And Hayes is excited that even Taylor’s most traditional classes are at least blended, as the district has now adopted one-to-one technology for every student.

“I definitely see the students happier. I see them more excited about learning,” says Hayes. “They feel like they didn’t waste any time. We’re able to propel those kids further than they may have gone before.”

FOR MORE READING

Curious to continuing reading about Taylor County Public Schools? Check out Superintendent Roger Cook’s article on EdSurge.
Sure, it can seem thrilling to announce that a school is rolling out a one-to-one device program. But is the school ready? Are teachers ready?

Charter school system **Aspire Public Schools in Oakland**, California, was one of the early programs to march boldly into blended learning. Liz Arney, then director of innovative learning, helped lead Aspire there—and even wound up writing a handbook about it, *Go Blended*.

Arney likes to say she absorbed plenty of arrows in the back as a pioneer in blended learning. Among the lessons that she and Aspire learned, few were more crucial that this: Before a school goes down the blended path, leaders need to assess whether the school—and then, its teachers—are ready. Here’s how.

## MONEY + INFRASTRUCTURE + LEADERS = NON-NEGOTIABLES

Aspire now has 28 elementary schools, 18 of which practice blended learning. ERES Academy kicked off the first Aspire effort to “go blended” way back in 2011, when Arney, as director of innovative learning, led the effort to figure out what made the best environment for blended learning implementation. Aspire came to champion a “station rotation” model, where groups of students would rotate between online programs, small-group instruction with the teacher, and independent work.
Since then, Elena Sanina, who joined Aspire in 2012 and is now senior manager of blended learning, feels that Aspire has identified several “non-negotiable” conditions that have to be satisfied before a school should go blended.

First, funding. “In the beginning, a lot of schools wanted to go [blended] without dedicated funding—but that’s challenging,” Sanina says. Some schools have sought a dedicated funder, such as a nonprofit. Others raise their own funds, she says. “The last couple of Aspire rollouts in the Central Valley have been on the school’s dime—people fundraised with parent councils, and E-Rate provided some funding for infrastructure.”

Sanina reports that the amount of money required to go blended with the station rotation model will vary. Some schools budget $300,000 for a two-year rollout of devices, while others budget only $150,000—Sanina and her team work with each school to determine the necessary costs.

Additionally, the funds have to cover more than just, say, buying hardware. Ideally, the money acquired is unrestricted so that it can be applied to whatever the school needs, with hardware oftentimes being the highest-price item. Schools “have to project three years out about the financial sustainment of that investment and the cost of replacing/fixing devices,” notes Sanina.

Creating a robust infrastructure is Aspire’s second non-negotiable. Especially in those early days of tracking readiness, Aspire kept a shortlist of which schools had “a certain level of wireless infrastructure”—enough hotspots (at least one access point in every other room) to support WiFi on every device that teachers and students have, for example.

And finally, perhaps the most important top-level element of whether a school is ready to go blended is leadership, observes Sanina. Even if there’s an enthusiastic group of teachers, they need to have someone who will have their back. “A school cannot go blended at Aspire unless they have a dedicated leader, like their principal, ready and willing to explore and invest in this work,” Sanina says.

“Since then, Elena Sanina, who joined Aspire in 2012 and is now senior manager of blended learning, feels that Aspire has identified several “non-negotiable” conditions that have to be satisfied before a school should go blended.

First, funding. “In the beginning, a lot of schools wanted to go [blended] without dedicated funding—but that’s challenging,” Sanina says. Some schools have sought a dedicated funder, such as a nonprofit. Others raise their own funds, she says. “The last couple of Aspire rollouts in the Central Valley have been on the school’s dime—people fundraised with parent councils, and E-Rate provided some funding for infrastructure.”

Sanina reports that the amount of money required to go blended with the station rotation model will vary. Some schools budget $300,000 for a two-year rollout of devices, while others budget only $150,000—Sanina and her team work with each school to determine the necessary costs.

Additionally, the funds have to cover more than just, say, buying hardware. Ideally, the money acquired is unrestricted so that it can be applied to whatever the school needs, with hardware oftentimes being the highest-price item. Schools “have to project three years out about the financial sustainment of that investment and the cost of replacing/fixing devices,” notes Sanina.

Creating a robust infrastructure is Aspire’s second non-negotiable. Especially in those early days of tracking readiness, Aspire kept a shortlist of which schools had “a certain level of wireless infrastructure”—enough hotspots (at least one access point in every other room) to support WiFi on every device that teachers and students have, for example.

And finally, perhaps the most important top-level element of whether a school is ready to go blended is leadership, observes Sanina. Even if there’s an enthusiastic group of teachers, they need to have someone who will have their back. “A school cannot go blended at Aspire unless they have a dedicated leader, like their principal, ready and willing to explore and invest in this work,” Sanina says.
TEACHER READINESS

When the aforementioned non-negotiables are accounted for, Sanina says that the next big step in assessing blended readiness comes in the form of “teacher readiness.” Specifically, Aspire teachers self-evaluate their own preparedness and identify where they need to change their practices to prepare for blended instruction.

For some teachers, this comes easily—as in the case of Natalia Martinez-Cristobal, a ten-year teacher with Aspire’s Los Angeles network. In the fall of 2015, Martinez-Cristobal wanted to try blended learning in her Kindergarten classroom at Aspire Antonio Maria Lugo Academy. She’d had technology in her classroom before, but quickly became aware of what she needed to work on for a station rotation model.

“Even though we always had computer stations and interactive whiteboards, I knew that one of the biggest issues was classroom management, which took a little longer for me to figure out” before going one-to-one, she says.

Not everyone is as self-aware as Martinez-Cristobal, however. Once the excitement of using tech in the classroom fades, what remains is the hard work of trying to change practices. “The second the shiny element of blended learning goes out the window, it may get hard, and some teachers may struggle,” Sanina says.

To help teachers and their respective administrators identify what they need to go blended, Aspire compiled a “Teacher Self-Assessment – Blended Learning Readiness” rubric. Working with an instructional coach, teachers score their own readiness to plunge into blended learning. And if they need even more support, such as coming up with new classroom management strategies before bringing the technology into the classroom, all blended campuses have a BLTA, or Blended Learning Teaching Assistant.

The rubric covers the behavioral, instructional and data elements that Aspire recommends teachers have in place before they introduce blended learning.

For example, teachers should have “a clear sense of how students will be grouped” in their use of technology (one element of “data readiness”). And teachers should post behavior management expectations around their classrooms for students to view (behavioral readiness).
This rubric has been the product of lessons learned in other rollouts from the early days of blended learning at Aspire. Yet rather than prescribing action, Sanina says the rubric is general enough that each teacher can merge their own style of teaching with technology.

“From a philosophical perspective, if we bring blended learning in because we acknowledge students are different, why do we expect teachers to all do the same thing, in the same time, with the same protocol?” she asks.

Just as every teacher’s blended classroom will look slightly different, Sanina acknowledges that their timelines may vary, as well—and that’s ok: “Teachers can get there when they get there. If they get there in December, that’s fine. It’s better than them putting kids on technology in a way that makes them uncomfortable. We don’t want to undermine their natural progression as an educator.” She adds that it’s important to keep the pace of a teacher’s transition as flexible as possible, as teachers are just as varied in their ability to learn and adapt as students are.

“Some will move fast, and some will just take more time,” she says.

RESISTANCE AND RESULTS

The beauty of Aspire’s process for “assessing readiness” is that it recognizes that there will be teachers who are intrigued—but not yet prepared—for blended learning. Hence, Aspire has not rushed to get all 28 of its elementary schools to go blended. But every year, more and more Aspire schools do join the crowd. Aside from the 18 blended elementary schools in California, Sanina reports that Aspire is now running blended pilots in certain middle and high schools. She expects that her team will “revisit the high school model” by the end of this school year. Until then, elementary remains Aspire’s sweet spot for blended learning.

And teachers, including Martinez-Cristobal, are more than happy with that.

“Last year, when we finished the first whole cycle of this, I was very surprised with the scores and data. It was shocking to see that some children performed way better blended than with a regular book!” Martinez-Cristobal says. “This is such a really natural way of learning—they feel successful because it’s on their level.”

Even though we always had computer stations and interactive whiteboards, I knew that one of the biggest issues was classroom management, which took a little longer for me to figure out.

Natalia Martinez-Cristobal, Teacher at Aspire Antonio Maria Lugo Academy

A second grader reads while her classmates are engaged in other activities. Credit: EdSurge
What do these changes look like in practice?

**MILPITAS PS**
*When Change (Management) is a Constant*
- School Culture

**VALOR COLLEGIATE ACADEMY**
*Making Social-Emotional Learning Core*
- Pedagogy & Curriculum

**ALBEMARLE COUNTY PSD**
*Redesigning for a Better Student Experience*
- Learning Environment

**PIEDMONT CITY SD**
*Where Students and Teachers Own The Data*
- Data & Assessment

**ALBEMARLE COUNTY PSD**
*Redesigning for a Better Student Experience*
- Student & Teacher Experience

**FREEDOM ELEMENTARY**
*Where Students Decide When and What*
- Scheduling & Timing
MILPITAS PUBLIC SCHOOLS
SCHOOL CULTURE AND CHANGE MANAGEMENT

When Change (Management) is a Constant

Step inside Milpitas High School, and you will see Chromebooks on every desk, individual students blogging and small groups testing wind turbines. Groups of 130 students at a time rotate through a remodeled learning lab.

This isn’t another Silicon Valley charter school, and it isn’t an elite district in a wealthy suburb. Milpitas Unified is a public school district at the very edge of the San Francisco Bay Area, home to 10,300 students, half of whom are immigrants.

Director of Technology Chin Song explains that rolling out any program in a district isn’t just about having the technology. It succeeds or fails because of two elements: effective change management and 

School Culture and Change Management

DEFINITION
School Culture: Establishing a strong school culture including values, beliefs, relationships and priorities.
Change Management: Coming up with a vision and working on a plan to smoothly implement, scale and sustain the changes that will be made.

# OF STUDENTS

# OF TEACHERS

PER PUPIL SPENDING
$9,139 (2014-2015)

ETHNICITY
African American or Black: 2.6%
American Indian or Alaska Native: 0.4%
Asian: 44.4%
Filipino: 20.2%
Hispanic or Latino: 21.1%
Native Hawaiian or Pacific Islander: 0.9%
White: 7%
Two or More Races: 2.4%

FREE OR REDUCED LUNCH (FRL)
32.9% (2014-2015)

ENGLISH LANGUAGE LEARNER (ELL)
27.5% (2014-2015)

% OF STUDENTS WITH INDIVIDUALIZED EDUCATION PLANS (IEP)
9.5% (2014-2015)

HS GRADUATION RATE
27.5% (2014-2015)

NUMBER OF DEVICES
2012: 50
2016: 8,500

TRANSFORMATION START YEAR
2011
a strong, cohesive school culture. Song, former Superintendent Cary Matsuoka, and the rest of the Milpitas administration have worked to create a smooth blended transition from 2011 onward, and as such, have established a culture that will continue to support future transformations.

That’s handy, because these days, change is constant—especially in Milpitas.

BUILDING TRUST

When Matsuoka and Song joined Milpitas in 2011, the environment was very static, recalls Song. Instructional practices had stalled, and technology use was little more than students spending 10 to 20 minutes waiting for slow computers to log-in, which resulted in an estimated 18 days of lost instructional time annually. Between five and 10 percent of the 400-person staff was new each year, but educators quickly adopted a “this is the Milpitas way” mentality that prevented the district from pushing ahead.

“If you look at the Competing Values Framework,” Song says, “we were in the red box. I wanted to go to the right [towards change and innovation], but how do you get people to change?”

The solution was twofold, and rooted in building trust among Milpitas staff.

Ban Binders

Districts usually take years to plan and produce a binder that sits on a shelf. But “binders do not change the system,” says Matsuoka. (He joined the Santa Barbara Unified School District as Superintendent in September of 2016.) Matsuoka and Song opted to use a process that Matsuoka learned from a friend who had worked at Stanford. The Stanford d.school had codified a design thinking process for K-12 educators, which essentially made teachers central to decision making processes.

In spring of 2012, Matsuoka asked his district teachers and principals one provocative question: “If you could design a school, what would it look like?” Matsuoka gave each of his 15 school sites a few design parameters: The models had to 1) integrate technology, 2) use data to inform instruction 3) be student-centered and 4) be flexible in how they used space, time, and student grouping.

After three months, teachers and principals presented their plans to the district’s central office staff, the school board, and union leadership. Five campuses submitted pull proposals; Randall Elementary and Weller Elementary won support and funding to begin creating blended learning environments in their classes.

Outreach and Field Trips—for Adults

Song and Matsuoka then kicked off an aggressive series of field trips, bringing as many as 100 administrators and teachers on trips to about 50 different schools around California. The district’s board members were invited as well, joining on a trip to San Diego’s High Tech High. “We asked educators, what would you like to learn more about?” Song says. The responses, in turn, helped them determine which schools would be the best match to visit.
Around 2013 when the change process accelerated, Song started bringing folks from other schools to Milpitas to share best practices, instead. “We wanted to bring people to campus because it was easier timing-wise,” Song explains. “Maybe it’ll be teachers from Rocketship, maybe Summit, maybe Santa Barbara… we like variety.”

**IT’S OK TO TRY… AND FAIL**
Between 2011 and 2015, blended learning gradually spread throughout the district. First, there was Randall and Weller. With the money they received, construction of remodeled learning labs at the elementary school campuses was finished in time for the fall of the 2013–14 school year; 3,500 Chromebooks were rolled out across the district.

By November 2013, blended learning had spread through many classrooms in the district’s nine elementary schools: Two-thirds of the classrooms offered some form of classroom rotation, which Matsuoka describes as “a familiar way to do this, harkening back to rotations used in elementary schools for years.”

Song believes that Matsuoka made a key action that supported the spread. During Matsuoka’s years as superintendent, when those first schools began to roll-out new learning environments, Matsuoka sent out a district-wide email during the first week of school, explicitly including the phrase “it’s ok to fail” in his text. “People will come up with the best idea that they can, and if it doesn’t work, that’s not a bad thing,” Song reports. “We really just wanted to foster a sense of exploration.”

**WHEN TECH HELPS REBUILD AND BRIDGE ‘SUBCULTURES’**
Matsuoka may have left for Santa Barbara in 2016, but Song is confident that he and his team can continue to support a strong sense of culture on their campuses. One method for this is through this past year’s private beta of Workplace by Facebook (WbF), where Milpitas educators can chat and share with one another in an internal online environment.

On the WbF platform, educators can capture something in their class, share it with other schools, and receive comments, while administrators can create polls to get a quick response to a question. The WbF ecosystem is contained, meaning educators can’t accidentally post anything that would be viewable to Facebook users outside of the Milpitas staff. Song also loves the fact that board members are a part of the community, as it gives them an opportunity to see blended practices that may affect how they think about policies in the district.

*If you look at the Competing Values Framework (...) we were in the red box. I wanted to go to the right [towards change and innovation], but how do you get people to change?*

Chin Song, Director of Technology
Song reports that despite Milpitas’s progress, “subcultures” have developed over the past few years. Some have developed around tech adopters and those who still aren’t totally on board with blended learning. Additionally, “you’ll have other groups isolate themselves,” Song says. “You’ll have the administrator subculture, the grade level subculture... and they don’t talk to one another.”

However, Song already sees that WbF is helping to bridge those subcultures, and unite the district once again. When Weller Elementary posts ideas for projects in their learning lab, for example, other elementary school teachers from other Milpitas schools will comment and ask questions. “We may have lost some of our district connectedness because we’re moving too fast,” Song says, “but we’re all moving toward the same goal.”

**ONWARD AND UPWARD**

So far, the evidence suggests that Milpitas’s change management strategies are working. When the district surveyed staff in the spring of 2013, more than 80% said they wanted to continue with this new direction. And the students? Milpitas’s API score was 851 in 2013, compared to 831 in 2010. Since California no longer tracks API, Song is looking forward to using **i-Ready** assessments to track student progression.

Milpitas continues to experiment with new school models, including self-paced models and project-based learning—and with that comes new culture challenges. For example, this year, Randall Elementary (which has the highest percentage of free/reduced-lunch students in the district) opted to begin the transition into a dual-language immersion program, beginning with Kindergarten. Teachers who don’t speak Spanish may have to switch to another school in the district by the time the dual-immersion program reaches their grade level.

But Song is confident that the teachers are ready and will adjust when the time comes.

“They know that these different situations will come in the future, and adaptations must happen in the classroom.”

**FOR MORE READING**

Curious to read more about Milpitas? Check out this 2014 EdSurge article on how Milpitas puts teachers first.
The way you design your curriculum can define school culture—and in one Tennessee school system’s case, it’s been transformative.

Todd Dickson, a founding teacher at Summit Public Schools in Northern California, wanted more for his students than just meeting the Common Core standards. Since he left Summit in 2012, Dickson has built a budding charter school system in Nashville, Tennessee, called Valor Collegiate Academies, where he’s championed social-emotional curriculum and personalized learning.

Let’s take a peek inside.

Back when Dickson was at Summit, only 38 percent of Summit seniors were graduating from college, in spite of a rigorous curriculum focused on college-readiness. Dickson was puzzled: “Something was missing; students were getting academically prepared to a point, but not persisting in college.” Dickson wondered what other skills students needed to develop—skills that would help them excel beyond 12th grade.

At the same time, Dickson was beginning to feel the desire to start his own school. His twin brother, Daren Dickson, was a psychologist who had been doing some work with social-emotional learning (or SEL), and after several conversations with his brother, Dickson realized that he wanted to prioritize SEL.

In early 2013, Dickson formulated a model around SEL and personalized learning. In the early fall of 2014, Dickson opened up the first Valor Collegiate Academy school with a group of fifth
graders, over 50 percent of whom were receiving free or reduced lunch, and 59 percent of whom were students of color. He opened a second school in 2015 to serve 510 students across two schools in grades 5–6, and hopes to expand to grades 5–12 by 2021.

**SOCIAL-EMOTIONAL LEARNING, PERSONALIZATION AND SELF-DIRECTED LEARNERS**

“Project-based and personalized learning is part of what makes great and applicable learning, but we also wanted to light a fire in our kids,” Todd Dickson says. “The SEL Framework was our best bet. We wanted to create kids that could persist longer.”

Daren Dickson serves as Valor’s Chief Culture Officer and the mastermind behind Compass, the school’s SEL program and curriculum. As Charter School Growth Fund partner Alex Hernandez described in a piece about Valor’s SEL program, the Compass program is organized around two basic experiences: 1) mentor groups composed of 22 students and a teacher who meet for a full hour twice a week during their eight years at Valor; and 2) individualized Compass plans “where students demonstrate mastery of skills in each of the five Compass dimensions.”

The five dimensions, pictured in the diagram above, are Noble Purpose (values and identity), Sharp Mind (curiosity and diversity of thought), Big Heart (courage and kindness) and Aligned Action (determination and integrity) with Truth North (balance and presence) in the center. During their time at Valor, students move through six phases of growth for SEL work and are able to earn different badges along the way.

Sixth grader Gilani Scott is a big fan of Compass, sharing that she’s learned that everybody is both the same and different in their own way. “At my old school, we never talked about anything like that,” she says. But in case not every student is as vocal as Scott, the thoughts and well-being of Valor students are evaluated through student surveys designed by the nonprofit **Six Seconds**.

SEL curriculum aside, Dickson also supports personalized learning. Valor has divided up the academic aspect of its programming into four grade-aligned stages:

*Stage 1 (grades 5–6) Students are trained on Chromebooks in fifth grade, and then receive them full-time in sixth grade; sixth graders are trained to analyze their own academic and non-academic growth.*
*Stage 2 (grades 7–8)* Flipped courses and more self-directed and project-based learning are introduced into the day. They account for approximately 33 percent of a typical student day.

*Stage 3 (grades 9–10)* Students start using a personalized learning playlist similar to the Summit Public Schools models. This accounts for approximately 50 percent of a typical student day.

*Stage 4 (grades 11–12)* Because Valor has yet to launch any high school grades yet, this is still in the works. However, Dickson says 11th and 12th graders will also engage in personalized activities that account for up to 50 percent of their day, just like ninth and 10th graders.

From a pedagogy standpoint, these stages mean that teachers act more as guides. While teachers do serve different roles in the model depending on the specific grade level or situation, Dickson says, “I think ‘coaches’ is the right way to think about them, specifically when they are supporting scholars doing self-directed learning.”

WHERE IS THE TECHNOLOGY IN ALL THIS?

The SEL curriculum is relatively low-tech, according to the forthright Valor administrators, but there are two notable exceptions. First, social studies teacher Scott Campbell mentions Kickboard, which is used to help assess and track students’ Compass performances. Then, Dickson adds that Valor recently received a grant from the Charter School Growth Fund and the Chan–Zuckerberg Initiative to codify their SEL program and to eventually make it usable for schools and districts around the country.

Aside from SEL, Valor is a textbook-less school; instead, there’s DreamBox, IXL, Redbird Learning, and most recently, ThinkCERCA. Illuminate houses all of Valor’s data and assessments, and is also where teachers and administrators track standards and objectives.

Campbell also shares that teachers frequently use Hapara and Google Docs for guided notes—which Gilani enjoys. “It’s a lot easier than having a lot of paper; when you have your Chromebook, you have it on one little device,” she says.

There’s one big problem that, unfortunately, technology hasn’t been able to fix—and that’s how overwhelming all of this transition to SEL and personalization can be, especially for newer teachers. “We got a lot of feedback that people were overwhelmed. It was a lot to take in,” Todd Dickson says.

But Scott Campbell stands behind his leader, saying that Dickson...
and other administrators have listened and been very responsive to data: “They always bring it back to questions like, ‘What’s not serving the needs of our students? What’s not gaining traction and helping the school?’”

GOING FORWARD

In its first year, Valor’s fifth graders had the strongest performance on state tests of Nashville’s 180 schools. Dickson believes that his focus on SEL and personalized learning is a major part of that, though the “why” eludes him. “What is it about the SEL? We want to find out,” he says.

Beyond that, Valor will continue to grow in grade levels, and hopefully maintain its strong culture and behavior stats (Valor didn’t have a single suspension in its first year), which Campbell believes are strongly tied to the success of both curriculum and assessment in schools.

“If you talk to our teachers and our students, there’s a joy factor in terms of who we are and what we’re going to become,” he says, adding, “The great thing about being a charter school is that autonomy, where we can continue to experiment. It makes us dangerous in a good way.”

FOR MORE READING

Still curious about Valor? Check out Alex Hernandez’s piece on Valor’s SEL program.
A multi-grade classroom with elementary students of all ages happily collaborating in a room with toolboxes; an erasable floor for writing and drawing; furniture that can be wheeled to where it’s needed. Teachers are a quiet presence, gently guiding the work of children who are completely engaged in the business of learning.

A dream? No, a suburban classroom in the heart of Charlottesville, Virginia and an experiment in learning that began with bringing down the walls of a traditional elementary school.

The Albemarle County Public School District in Charlottesville boasts 26 schools attended by some 14,000 students.

Despite the district’s history of high test scores, many teachers were frustrated around the early 2010s: They wanted their students to be more actively involved in the process of learning. They found a sympathetic ear in district superintendent Pam Moran.

Three years ago, under Moran’s guidance, the district transformed Agnor Hurt Elementary into a makerspace and watched as the experiment yielded results that far exceeded their expectations.

DEVELOPING THE SPACE

By the time the makerspace opened in the 2014–15 academic year, the school had already experienced a few changes under the tutelage of principal Michelle Castner. Third-grade teacher Michael Thornton was already tinkering with the conventions of the traditional classroom, having rid his space of desks the year before. A few of
Thornton’s colleagues had begun teaching combined grades and were pleased with how older and younger kids benefited from learning together.

Moran liked what she saw. She tapped Thornton to lead a group of teachers and students tasked with reinventing the school. Nine months later, she made Agnor Hurt the district’s first K–5 school with a multigrade classroom. If the experiment were to work, Thornton warned colleagues, they must allow students to take the lead.

“We realized that if we didn’t let students dictate things instructionally, it would be a waste,” said Thornton’s co-chair, teacher Andrew Craft. “We can’t micromanage.”

Agnor Hurt’s experiment in learning operated by three ruling principles—The space must be completely open, with only improvisational furniture (on wheels); classes must be multi-age, and students must decide how they wanted to learn. The ultimate goal: To create an environment without preconceived notions of “right” and “wrong.”

Previously, Agnor Hurt’s teachers discovered that combining older and younger students resulted in better behavior. Older students took seriously their roles as mentors to the younger children, and the younger students modeled their behavior on their older classmates.

Teachers faced the greater challenge: They had to determine what role to play in Agnor Hurt’s student-led learning environment.

**AN INSIDE PEEK**

The classroom is about 7,800 square feet in area. When kids want the setup changed, teachers let them do it. Here’s how Agnor Hurt might look on an average school day:

- A younger student teaches older students how to import a Minecraft picture into a Google Slide.
- Fourth and fifth graders draw a solar system on floor with dry-erase markers.
- First graders assemble a drone while Kindergartners watch on.

Teachers guide students “without limiting their creativity,” Craft said. “We more or less try to step aside and let them lead. Our goal is to teach the curriculum and make sure the information is there, but not limit their growth as individual and learners.” Thornton, Craft and their colleagues quietly move between groups of students as they work on their projects.

Equipment and supplies, scattered about the room, are always available. “Rather than focusing on one particular device as a solution to their work, like an iPad or a big monitor, kids should be able to pick from a lot of different tools,” Moran said. Students choose from the following tools:

**Technical:** Lenovo laptops, Chromebooks, Galaxy Tablets, ActivPanels, 3 large Lenovo tablets and Macbooks. Students are encouraged to bring devices, if they so choose;
Non-technical: Typical school supplies including paper, pencils, scissors, and tape. Students can also write on the floor, tables, and walls with the dry erase markers.

Students decide which tool will work best for an assignment. “The kids are essentially being active learners who have a sense of agency,” Thornton said. “They have devices, but they’re almost tech-agnostic. They figure it out. Whether with beakers or markers, they figure it out.”

Agnor Hurt faced two serious obstacles before opening the doors in the fall of 2014. The first was skeptical parents, and the second, far more serious challenge was how to finance the project.

It turned out that Agnor Hurt’s parent community was largely supportive. Those who weren’t could opt out in favor of a more traditional classroom. Financing proved trickier: The school district needed nearly all of the per-student funding it receives from the state each year. In many public districts, freeing up space in the budget for new projects like this can be challenging. For Albemarle, it was particularly difficult, since the state had just edged up Albemarle’s per-pupil state funding for the first time in more than five years.

Cleverly, Moran had chosen to wait until she had just the right constraints to make a project like this successful—or rather, necessary. “Agnor Hurt needed a capacity solution; they were overcrowded,” she says. “So, rather than building the same old commitment to building X number of classrooms, we said, let’s think out of the box.” Agnor Hurt was over-subscribed; Moran saw to it that the new design gave the school more space. Problem solved.

How has Agnor Hurt’s learning experiment fared? So far, it’s exceeding expectations. Test scores are high, and students of different ages and backgrounds are coming together to work and play in harmony. Additionally, students have been given room to stretch. Said Thornton: “We have third graders who are really good at fifth grade science stuff, and now, they can do it.”

Teachers, too, found they could rise to the challenge. “It was a little nerve-wracking at first to give up that control,” Thornton said. “But after the kids got the message that they were in charge of the learning day, we got into a rhythm.”

FOR MORE READING
Want to learn more about Albemarle and Agnor Hurt Elementary? Check out this EdSurge article.
In the foothills of Alabama’s Appalachian Mountains, leaders of the Piedmont City School District were rightfully proud that their schools had consistently met their AYP (Adequate Yearly Progress) goals. But according to a 2010 Gallup Student Poll, only 35 percent of students believed they could solve their problems, and only 40 percent thought they can achieve their goals—likely influenced by some hard economic hits Piedmont took when two of the town’s main factories closed or moved out of the U.S. In fact, from 2007 to 2010, Piedmont’s unemployment rose by 10 percent.

In 2009, Superintendent Matt Akin and a team of Piedmont educators decided to do something about this. Underscored by the belief that there was a better way to prepare students for the world both inside and outside of Piedmont, they brought in a competency-based learning model, and completely restructured the district’s approach to assessment and data. Here’s their story.

GETTING INSPIRED AND IDEATING

Over the course of 2009, Akin and his team visited the likes of Mooresville Graded School District in North Carolina and Summit Public Schools in Redwood City, California. Inspired by what they had seen, the team decided to do away with “seat time” and implement competency-based learning, letting students master standards at their own pace and move on when necessary. But after three years of it, the team began to realize that they needed a more organized way to assess and gather data on student learning.
According to Akin, assessment would need to 1) include numerical data to show quantitative growth and 2) include performance-based and project-based learning activities so that students could see the relevance of their learning in authentic ways. “A lot of people also think of assessment as one test at the end of a unit or standard. But our assessment has to be continual.”

And, Akin adds, it would need to involve a variety of assessment options that students could choose from. “The important thing we saw when visiting other schools was the power of student choice in assessment. And of course, more choice means more data,” he says.

So, Akin and his team created “mBolden.”

**BRIDGING COMPETENCY-BASED LEARNING AND ASSESSMENTS**

In 2013–2014, Piedmont piloted a competency-based program called “mBolden Piedmont,” and the next year, administrators rolled out the program schoolwide at Piedmont Middle School. In order for the program to function well, various forms of assessments had to be intricately connected to the competency-based learning program’s three main components: My Time, Team Time, and Class Time. And along with it, the way teachers used data also changed.

“Long-term planning has really changed. It’s not about planning for the whole school year anymore. Planning has to take place as a result of the data,” says Akin.

**MY TIME: USING MASTERYCONNECT AND NWEA SCORES**

During My Time, students work through core competency skills and standards at their own pace. No teacher stands in front of the class,
feeding students information; the students have to put in that effort on their own.

To help students find a starting place, teachers use students’ NWEA scores (introduced into Piedmont in 2014). Two days a week, students typically progress through their Independent Learning Plan (ILP), a set of lessons curated on the Compass Learning Odyssey program based on their NWEA achievement test scores. During the other three days a week, students use online programs, including Achieve3000, Discovery Education, Istation, BrainPOP, IXL, and USA Test Prep, to build their skill sets.

“What happens is that our programs are integrated with NWEA, and according to how students perform on those assessments, the content students get adjusts to how they did,” Rachel Smith, the district’s curriculum coordinator, says of the ILP program.

Because My Time sessions produce a tremendous amount of data on students and their progress, Piedmont Middle School teachers have weekly data analysis periods in addition to their regular planning periods, during which they use Mastery Connect to track student progress on their ILPs, as well as build and upload assessments. MasteryConnect gives teachers a color-coded display of how students are doing, and from the information on this dashboard, teachers plan the next part of the competency-based program, the “Class Time” lessons.

“Long-term planning has really changed. It’s not about planning for the whole school year anymore. Planning has to take place as a result of the data.”

Matt Akin, Superintendent

“We wanted students to be able to track their goal as relevant to a goal later in life.”

Rachel Smith, Curriculum Coordinator
**CLASS TIME: ASSESSMENT COMES IN MANY FORMS**

“Class Time” is usually set up as a series of four stations that students rotate through every day, one for every core subject. Some students work in groups as a teacher reviews content with them, while others work individually on their teacher-compiled Blackboard playlists. Some are completing projects, while others are working on peer assignments. And each of these activities generates a mountain of assessment data.

Akin laments the fact that the district doesn’t yet have a dashboard where all this data gets consolidated. But Magan Glover, the blended learning coach at Piedmont Middle School, says that “teachers are at least looking at [data] more than they had before.” She continues:

“Each teacher will analyze the results of [each] assessment and pretty immediately know what that will mean for their instruction the next day. Assessment and data means the class structure—how kids are grouped, who needs remediation—changes on a day-to-day basis.”

And it’s not just teachers analyzing data. In fact, if you’re wondering where those mastery goals for each student are coming from, that’s where “Team Time” comes in.

**TEAM TIME: TEACHERS AND STUDENT CO-ANALYZE AND SET GOALS**

During Team Time, which takes place three times each week at the start of the morning, teachers meet with students to set and track standards-based mastery goals. Day One is dedicated to personal goals, Day Two is dedicated to reviewing the student’s collaborative projects, and Day Three is for researching possible careers.

To support conversations on Day One and Day Two, students look at their own mastery data on Mastery Connect and see where they’ve progressed. This data comes from core content work completed during My Time, as well as classwork and projects done during Class Time. Students then create targets and celebrate when they’ve improved.

On Day Three, students research future career choices, making connections between what they are learning in school and what they can do with that knowledge in the real world. “We wanted students to be able to track their goal as relevant to a goal later in life,” says Smith, the curriculum coordinator.
And all of this reflection and planning doesn’t just stay between the student and teacher. “We hold these student-led conferences once each semester where they talk about their work and the standards they’ve mastered with parents,” says Smith.

**MOVING FORWARD**

Piedmont educators are the first people to admit that this is still a work in progress. “Students like being told by the teacher when there’s a test. We’ve learned that with middle school kids, you have to guide them,” Akin admits. But students are slowly picking up on the model, he says. “We’ve shifted that conversation. Now, the students have to tell us when they are taking the test.”

Thus far, the program has expanded up to ninth grade at Piedmont High School and down to fourth and fifth grades at Piedmont Elementary. In 2016-2017, mBolden expanded to 10th grade.

In the last several years, Piedmont students have shown growth in various ways. They’re scoring higher on the ACT, and even more telling, 70 percent of students are actually taking the test, as opposed to just 30 percent in the years before 2009. But for Piedmont Middle School principal Jerry Snow, success isn’t about the traditional tests. It’s about another form of assessment—a change in the way students assess and think about themselves.

“Students know now that even if they don’t know how to do something, we’ll provide what they need to figure it out,” Snow smiles.

**FOR MORE READING**

Curious to read more? Here’s a piece on EdSurge that delves into some of Piedmont’s other innovations, **including a “virtual start” schedule.**
CASE STUDY: What do these changes look like in practice?

HARRISBURG’S FREEDOM ELEMENTARY
SCHEDULING & TIMING

Where Students Decide When and What

As schools prepare to reopen their doors in the fall of 2016, Freedom Elementary School in Harrisburg, South Dakota is preparing to open minds. Instead of calling kids “students,” they are called “learners.” Instead of classrooms, the school built “studios.” And most importantly, instead of having classes on a strict schedule with preset activities, students choose how they spend their time, every day. And why? Because according to Travis Lape, assistant principal in Harrisburg School District’s Freedom Elementary, when students decide “what and when,” their learning and engagement soars.

For the last four years, Harrisburg School District has been working on a personalized program that attempts to boost students’ enthusiasm for attending school. According to a 2013 Gallup survey, somewhere between elementary school and high school, student engagement begins to dip. Some students excel; others fall off the achievement map. This alarmed Lape, as he wrote in a 2016 EdSurge article:

“Think about this familiar situation, for a second. Student A is in second grade and struggles with reading. Students are not finding their passions, and instead sitting in classes consuming information. The end of the year comes, and the student is ready for third grade in math—but not third grade reading.”

Inspiration struck back in 2012, when a local Harrisburg high school started to make movements towards personalized learning. Simultaneously, several Harrisburg teachers attended the Minnesota TIES conference that year, where they saw presentations from

Scheduling and Timing

DEFINITION
Scheduling and Timing: Thinking outside the box when approaching flexibility of time, scheduling and figuring out when the learning happens.

# OF STUDENTS
430 (2016-2017)

# OF TEACHERS
30 (2016-2017)

PER PUPIL SPENDING
$7,175* (2016-2017) *for the district

ETHNICITY
White: 93%
Other: 7%
(2016-2017)

FREE OR REDUCED LUNCH (FRL)
21.7% (2016-2017)

ENGLISH LANGUAGE LEARNER (ELL)
1.2% (2016-2017)

% OF STUDENTS WITH INDIVIDUALIZED EDUCATION PLANS (IEP)
21% (2016-2017)

NUMBER OF UNIQUE SCHEDULES GENERATED FOR STUDENTS EACH WEEK
Prior to 2016: 1
2016: 470

TRANSFORMATION START YEAR
2012
Pioneer Ridge Middle School, a personalized learning school from Chaska, Minnesota, of similar demographics and size.

While Lape thought about how to shore up student engagement starting in elementary school, he found himself inspired by those schools’ personalized approaches. After ideating during the year 2013, Lape and his team realized that in order to support student engagement, they had to bolster three personalized activities:

1. **Active learning**
   Learners are not merely more active through creating and deciding, but are also more actively learning through the positive review of their experiences. Example: individual and/or peer-to-peer reflection.

2. **Collaborative learning**
   Learners come to see themselves and others as resources in meaning-making, rather than the teacher as the sole fountain of knowledge. Example: group projects.

3. **Learner-driven learning**
   Learners come to drive the agenda as they generate questions and evaluate their progress. Example: open “flex” time, where learners choose the activity.

Lape realized that loosening the strict regime of a typical elementary school schedule would be key. So, he and his team created a flexible seating plan environment and a novel schedule system that put more choice in students’ hands.

“\[the studio\] offers learners voice and choice in what area do they need to be in to work on the different assignments, without confining them to grade level-specific activities.”

Travis Lape, Assistant Principal at Freedom Elementary

“No longer are they just doing a math worksheet,” he says. “They’re taking pride in their work.”

Travis Lape, Assistant Principal at Freedom Elementary Assistant Principal at Freedom Elementary
In the spring 2015, the District applied for—and received a three-year $45,000 grant from South Dakota Technology and Innovation in Education group to start this work at the Elementary level. In the fall of 2015-2016, the team used a small amount of money for professional development, getting teachers prepared for the pilot. In the summer of 2016, the team built the scheduling system and curriculum to support the move. And finally, in the fall of 2016, it was time to implement.

**STRICT SCHEDULING, BEGONE**

When Freedom opened this past September, the program for its 94 elementary school students was radically different: No singular schedules, no grade levels and no tidy lines of desks all facing to the front. They called the program EPIC (Empowering, Personalizing, Innovating and Creating), and strive to make the name appropriate.

The day’s activities are built around “studios,” which are aligned to grade-level standards and run by studio coaches (teachers). Learners move fluidly through these studios, as well as attending P.E., art and music. They don’t know which grade level they are in—rather, they know the topics that they are responsible for, like measurement or addition/subtraction.

The flexible schedule allows learners to start each morning by planning the day to their liking and finding out where to go. While there are a few set structures (all learners have to take math at the same time, for example), Lape explains that every day starts with a meeting where an adult facilitator explain the offerings for the day. And then, students select which studio activity they’d like to use—and the process begins again the next day. Each studio has an

> It took us a few weeks to realize that they didn’t know how to manage their time. In a traditional classroom, they all headed in at 8, all went to the bathroom at 9:30 (…) We’ve been working to help them, motivate them.

Travis Lape, Assistant Principal at Freedom Elementary
adult facilitator (a teacher) as a guide, and at the end of each topic, learners create an “artifact” as proof of their learning.

“This offers [the studio] learners voice and choice in what area do they need to be in to work on the different assignments, without confining them to grade level-specific activities,” Lape says.

Here are some samples of studio activities:

<table>
<thead>
<tr>
<th>Studio Activity</th>
<th>Description</th>
<th>How it supports learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEMINAR</td>
<td>Teacher-led instruction</td>
<td>New learning targets (think “measuring in meters”) are being taught through direct instruction.</td>
</tr>
<tr>
<td>COACHING WORKSHOP</td>
<td>Small group instruction on specific learning</td>
<td>Learners who still need some support can sign up for a coaching workshop to get more attention from the teacher.</td>
</tr>
<tr>
<td>LEARNING LOUNGE</td>
<td>Partners or Groups of learners can work together</td>
<td>Learners will work together on task or projects in this zone.</td>
</tr>
<tr>
<td>CREATION ZONE</td>
<td>Where things get messy</td>
<td>Learners have this space in the studio to create and show their learning. This space tends to busy at the end of the week when artifacts are being created.</td>
</tr>
<tr>
<td>PERSONAL FLEX</td>
<td>Self-selected, individualized learning time</td>
<td>Some learners learn best by working alone, so instead of attending a seminar, the learner can watch a video in the personal flex area of the room.</td>
</tr>
</tbody>
</table>

There is always the concern that a student could keep choosing the same studio every day, over and over again. But as Lape explains, the morning meeting serves as a space for facilitators to help coach students on their choices—for now. “At the moment, students need the support. But we’re hoping to phase that out eventually.”

**HOW TECH SUPPORTS FREEDOM’S FLEXIBLE SCHEDULING**

To help students make a daily schedule, Freedom relies on the same software that Lape observed at Pioneer Ridge, a schedule powered by Kairos scheduling software. Learners log into their portal and see what is available for the week from Monday through Friday, and once they click on a day, the periods available for that day would pop up, whether it’s a seminar or coaching workshop.

Once they choose what studio activity they want—whether it’s individual coaching or collaborative learning with a bigger group—it appears in their schedule. Coaches can also lock in specific periods on the scheduler if they need to see a learner.
In the beginning, while learners are new to the studios, teachers map the schedules based on learners’ NWEA map assessments aligned to state standards in math, reading and language. Later on, the learners will have more choice in where they go and what they do. On their iPads, each learner can access the scheduler, where they can add find their studio activities or sign up for student interest groups, a period where professionals and experts come in to talk about their jobs.

**WHAT HAPPENS IN HARRISBURG...**

This process hasn’t beeithout its problems. For example, Lape has said that the transition to a new style of management and timing has been challenging for some teachers and students. “It took us a few weeks to realize that they didn’t know how to manage their time. In a traditional classroom, they all headed in at 8, all went to the bathroom at 9:30...” he explains. “We’ve been working to help them, motivate them.”

Lape says setting priorities has helped the school overcome challenges in rolling out this scheduling plan. All four facilitators, for instance, have to set aside planning time at the same time at the end of every day. There is usually no agenda, and they gather as a group to talk about the day, what struggles they faced and what they might need next. It takes time and buy-in, however, from all stakeholders, Lape says. Educate the parents and get learners invested, he adds: “The biggest thing is you have to get a team, and then with that team, you have to take it slow. You have to ask the right questions.”

Getting rid of strict schedules may take some getting used to for everyone, but by taking a chance on changing what education has taken for granted after so long, Harrisburg may have a shot at winning over student engagement. And while Lape won’t have NWEA data until the winter to see how students are performing, the personal accounts of success are enough for now. “No longer are they just doing a math worksheet,” he says. “They’re taking pride in their work.”

**FOR MORE READING**

For more reading on Harrisburg, check out Travis Lape’s personal account of how Harrisburg got rid of grade levels.
What resources do we need to make this happen?
Since 2013, close to a third of the US school districts have charged into one–to–one digital instruction, putting a computer in the hands of every student—and the number is growing. It’s an alluring path, in part because it placates parents and school boards demanding a “21st century” education. But too many have also had a chilling moment when they realized their bandwidth infrastructure couldn’t begin to deliver on their technology goals.

That’s exactly the experience that leaders in Renton Public Schools in Washington aimed to avoid three years ago when they began planning the district’s future. So they turned the process upside down: District leaders decided to build the infrastructure first, then add the computers gradually. In its district–wide tech plan for 2016 to 2022, Renton set a goal of reaching a one–to–one device–to–student ratio for all middle and high schoolers in the 2019–2020 school year.

Renton school leaders keenly felt pressure to go one–to–one: The district is located less than 20 miles south of Microsoft’s headquarters, but serves one of the most diverse and impoverished communities in the state. “Everyone is saying ‘we are in a digital world,’ so how do we support every student, especially those that might not have WiFi access at home?” asks Ellen Dorr, Renton’s Director of Digital Learning. “We also know that prioritizing underserved students means, for example, better literacy tools that support ELL students, which requires more internet access for students.”

To build a stronger infrastructure and get to better internet access, the district needed a team of decision–makers, so the story of Renton really starts with its people.
Chapter 4: Peeking Inside Schools and Districts

HOTSPOTS AND YOUTUBE AND WIFI, OH MY!

As in many districts, technology issues in Renton had wound up in the hands of multiple groups over the years: A “customer service team” that fielded complaints and questions from anyone in the district; an “infrastructure team” that provided technical support; and Dorr’s instructional technology team, which has since changed its name to the “digital learning team.” Quite often, these teams collaborated to create policies around technology and to problem-solve whatever challenges would arise.

A common example of crossover between the teams occurred when a teacher wanted to unlock a website. The teacher would send an email to the customer service team asking them to unblock the site. The customer service team would pass along this request to the digital learning team, which would make a decision about whether the website should be unblocked. Then, the infrastructure team would step in to make the technical change. Although these types of requests were very common, the process was complicated and labor-intensive—so the teams involved knew they needed to make a change.

Collectively, they interviewed and collected feedback from educators (many of whom were frustrated by the district’s past WiFi struggles) and then laid out a three-prong set of priorities: make the existing networks easier to use, rethink the district’s internet filtering policies—which had in the past been very tight—and bring in hotspots to bridge spotty service.

Initiative 1: Open Up Networks

Prior to 2014, only “registered users” could access the district’s WiFi networks. The password requirements blocked parents from using the network, and when students forgot their login passwords, work ground to a halt.

“Everyone is saying ‘we are in a digital world,’ so how do we support every student, especially those that might not have WiFi access at home?”

Ellen Dorr, Director of Digital Learning
To solve these issues, Renton decided to unlock access. As part of the decision process, the district considered both the risks and the advantages, such as making the network more vulnerable to attack or providing free internet to everyone. Ultimately Renton decided that the benefits outweighed the risks, and that this change would bring the district one step closer to its commitment to equity of access.

Initiative 2: Reconsidering Internet Filtering
Filtering policies had originally been set up to protect students, but they often frustrated secondary educators and students alike. Teachers frequently made requests for websites to be blocked or unblocked.

In late 2014, Renton revived an “Internet Filtering Committee” (IFC), and asked it to meet twice a year to make—and remake—filtering choices. The committee included Dorr, the head of infrastructure, the district webmaster, teachers, digital learning coaches, the district CTO, and parents. A digital learning coach separately ran a student group on filtering, and added that voice to the planning group, as well.

Over the course of that year, the group ultimately voted to open up access for all PreK–12 students to many previously blocked sites, including YouTube—and in doing so, allowed teachers to help students learn how to filter for themselves.

Initiative 3: Patch the Holes
In 2014, Renton decided to add more access points to the network. Although there were many reasons, in large part the district had moved away from desktops and more teachers were using carts of devices, often for assessment.

Renton added 1,100 access points across its 25 campuses—increasing available internet bandwidth to 85 megabits per student, ten times the speed that it had been before.

This increase brought one access point into each classroom, allowing teachers to run assessments from any room on campus. Instructional areas such as libraries and classrooms got hotspots. But so, too, did areas such as gyms and cafeterias. “It helps to have Access Points in the cafeteria when you bring in a bunch of parents for Parents’ Night,” Dorr says.

“"We also know that prioritizing underserved students means, for example, better literacy tools that support ELL students, which requires more internet access for students.”

Ellen Dorr, Director of Digital Learning
RESULTS AND UNANTICIPATED CONSEQUENCES

Currently, all the effort poured into getting the infrastructure right is paying off: The number of requests to block or unblock sites has dropped to almost zero, compared to the stack of weekly requests that used to roll in. Administering standardized tests is going smoothly, too: When Renton ran a recent English Language Proficiency testing block, Dorr reports that there were “almost no issues” related to WiFi. And the district has gotten email addresses and Office 365 into the hands of every student. There has also been an effort to increase pilots, and currently the district is running five pilots that are all fully integrated into the instructional model.

One unanticipated consequence of opening up the WiFi network, Dorr notes, is that both teachers and students can more readily find and use online software, but they might not know the consequences of some of these programs. “They might not know that they’ve been tricked into a freemium model,” Dorr suggests. “They might inadvertently expose sensitive data.”

So, Dorr has added another bullet point to her “To Do” list—namely, creating a system, called the “web app and hardware approval process,” to make it easy for teachers to get approval to use new edtech products or advice about what to use. When a request comes in, Dorr and her team place each request into one of four categories: supported, approved, approved with cautions, or not allowed. Dorr is aiming to publish these findings quarterly, sharing which resources are available and why so that teachers can make informed decisions.

Renton is also now moving on its districtwide tech plan for 2016 to 2022, to ensure 1) equitable access for every student and 2) that every middle and high school student has a device that can be used in school, but also taken home. (Currently, the district has approximately 15,000 students and 7,800 devices). With that plan will come conversations about infrastructure beyond school grounds, Dorr reports. Along with bringing in 3,000 new devices for students this year, Dorr reports that she’ll be facilitating a meeting this winter with every Renton school’s leadership team to discuss uses of WiFi, digital tools, digital citizenship, and more.

Infrastructure might not be the sexiest or shiniest topic of conversation when it comes to one-to-one—but when a district like Renton elects to add 2,900 new student devices to its tech repertoire this year, Dorr and her team are hoping to hear three little words: “The WiFi works.”

“

It helps to have Access Points in the cafeteria when you bring in a bunch of parents for Parents’ Night.

Ellen Dorr,
Director of Digital Learning
CASE STUDY: What resources do we need to make this happen?

ACTON ACADEMY

EDTECH SELECTION

When Students Buy the Edtech

In Austin, Texas, kids rule at Acton Academy.

Acton Academy, a private school housed in a single classroom, was started in 2008 by Jeff and Laura Sandefer. The students, called “Eagles,” are the ones in charge. They are responsible for everything that happens at Acton—from keeping the space clean to planning and implementing inquiry lessons for their classmates. Adult “guides” are available for conversation, but they don’t teach and are not allowed to answer questions.

Among those student responsibilities is “selecting edtech.” Eagles decide what type of technology works best for them at any given time—which math programs to use, which robotics kits to program. And because they make those choices, the Eagles use problem-solving and collaboration skills to test and pilot those tools, as well.

Here’s how they got there.

A BRIEF HISTORY OF TECHNOLOGY AT ACTON

When Acton Academy opened its doors back in 2009, the school was a blank slate, unaffiliated with any district or school network. The Sandefers were eager to create an educational experience where children would ultimately find the right path for themselves, taking what the Sandefers refer to as the “hero’s journey.”

“Jeff and I started Acton Academy with the most compelling ‘why’ of all—our own children,” Laura wrote in a blog for Acton parents. “They were curious and fun and resilient, and we wanted to let that grow naturally.”
This view of education—and how it connects to technology—was greatly influenced by Sugata Mitra’s “Hole in the Wall” experiment. In 1999, Mitra and his colleagues put WiFi-enabled computers into a wall in the slums of New Delhi, India. Without adult assistance or formal education, children from the surrounding area congregated at the computers and, within a few hours, were surfing the web. That experience prompted Mitra to develop the theory of “minimally invasive education.” Children, he believed, could learn to use technology by supporting each other.

Inspired by Mitra, the Sandefers designed Acton Academy to give students the time, the space, and the freedom to learn as they saw fit. “We started with seven young heroes in a small rented space, so nothing was in place,” recalls Laura Sandefer.

**WHO IS CHOOSING THE PRODUCTS FOR PURCHASE?**

Back in 2009, the Sandefers largely directed Acton’s edtech purchases. They looked for tech that supported the goals of student self-direction and responsibility for learning, and decided to use a blended approach to math with online math supports including Khan Academy, Dreambox, MangaHigh, and ST Math.

There were plenty of bumps. For example, they purchased PC laptops for all students only to struggle with the seemingly constant need for software upgrades. As they sought alternatives, a surprising answer came from two students who were traveling with their families and doing their homework on Chromebooks instead of PCs. The Chromebooks needed no maintenance. These days, every Acton student totes a Chromebook.

And the Eagles now play a conscious role in researching and recommending the tools they feel will help them learn best. According to Laura Sandefer, that approach ensures that the school avoids “tools that are designed to help teachers control students, because that doesn’t work in our environment.”

Most of the tools the students adopt are free or low cost, acknowledges middle school student, Sam. But Acton has also codified a process that students can use to suggest that the school try

> Everything is ‘challenge by choice.’ If an Eagle wants to experiment with a piece of software that costs money, he or she simply writes up a proposal to try it.

Laura Sandefer, Co-Founder of Acton Academy
out software that has a price tag. “Everything is ‘challenge by choice.’ If an Eagle wants to experiment with a piece of software that costs money, he or she simply writes up a proposal to try it.”

Students pilot the software tools they want to use and share the results with the community. Among the tools now in the Eagle’s tech stack: ALEKS, NoRedInk, Spelling City, Typer Island, Clickn Read, iCivics, 3D GameLab, Crash Course, Algodoo, Rosetta Stone, Fluenz, Mango Languages, Duolingo, “…and probably two dozen more,” says middle schooler Sam.

‘I THINK I’LL USE DUOLINGO TODAY’

That sounds like a deep library of tools. But not every tool is used all the time.

Instead, students have to make choices about what will best support their learning, from hardware to software. Sometimes, the best tool to use is a school-issued Chromebook; sometimes, a digital camera the student brings from home; sometimes, a piece of paper and a pencil. What sets Acton’s tech stack apart is the fact that students have complete control over what tools they use. Usage varies. Many tools go untouched for a week. The Sandefers don’t mind.

For example, during Acton’s “Studio Time”—a 90-minute period when Eagles work on core skills in reading, writing, and math—there are no specifics around which programs to work on or how long to spend on each program. Students make tech usage decisions based on their own goals or interests, their weekly SMART goals, or advice from their “running partner” (a peer coach). While some students work independently on software and a device of choice, others may use Studio Time to collaborate with classmates of varying ages, depending on whether they’re in the Elementary Studio (students from first to fifth grade, according to traditional school programs), Middle School Studio (sixth through eighth), or Launchpad—a high school studio recently launched in 2016.

Students can get distracted with “frivolous play” rather than learning, concedes middle school student, Sam. But the Eagles take care of it like they do any other problem—by reminding each other of the contract they created at the beginning of the year, the one where they promised to take responsibility for their learning and be diligent in their work.

SPREADING THE MODEL

As the Eagles get older, Jeff and Laura Sandefer look forward to getting their input about the tech tools used on the administrative side of
the school. Currently, the Sandefers select the schools’ accounting software and Internet service provider. They believe the Eagles can take over those decisions, too.

The Sandefers also hope to inspire other educators to give control over edtech selection to students, specifically by opening up new Actons all over the world. Since 2009, they’ve opened 33 schools worldwide and plan to pick up that pace. “We’ve added 19 schools this year alone, and plan to add one hundred or so next year, so there’s a constant stream of experimentation and recommendations,” says Laura Sandefer. Jeff adds that they currently “have over two thousand applications in the queue” from schools designers interested in getting involved.

As Eagles in other Acton locations experiment with how they best learn, Acton will have rich conversations about the best tools to support learning. Acton’s most difficult task, Jeff says, is also it’s most rewarding.

Laura is excited to see how sharing resources across new sites will continue to benefit learners everywhere: “We enjoy keeping up with what the Eagles find, so we can understand how they are learning so quickly.”

FOR MORE READING

Curious to continue reading about Acton Academy? Check out this EdSurge article by founder Jeff Sandefer or this in-depth look at the overall model.
CASE STUDY: What resources do we need to make this happen?

YUMA ELEMENTARY SCHOOL DISTRICT ONE
BUDGET & FINANCIAL PLANNING

Better Edtech Budgeting

During 2009, then-Superintendent Darwin Stiffler and Associate Superintendent Duane Sheppard of Yuma Elementary School District One in Arizona had just taken their positions and were trying to figure out how to meet students’ needs. Like many districts, they serve a lot of low-income students, many of whom struggle in reading in math and reading, and a number who moved to Arizona from another country.

To start somewhere, they decided to search for digital content to help with improving student learning. But figuring out how to educate all types of students with online content is challenging when working within a district budget. “In Arizona, we have such limited resources,” Sheppard says, noting that in 2014, Arizona ranked 48th out of 50 for state education spending per student.

Luckily, during their first year at the district, the two realized that Yuma had $850,000 in unused Title I funding. Now, the question was how to experiment with it—and what to do when that money ran out.

DECIDING WHAT TO BUY

When it came to digital tools, Sheppard and Stiffler wanted to first fund one subject, in particular. “We decided that math would begin our focus. Let’s try meeting all of the needs of our students in math,” Sheppard says.

The two decided to pool the Title I money and buy five laptop computers for every classroom teaching math across the district (approximately 450 laptops) in the spring of 2009. With these laptops, many teachers rose to the challenge of using digital materials—a new concept back in 2009. Additionally, when they saw how the devices helped students learn, principals of individual schools began to use their budgets to buy more laptops and create computer labs, reports Stiffler.

The enthusiasm led Sheppard to begin building the infrastructure to support more devices over the next six years. He invested $500,000—90% from E-Rate dollars, 10% from the district—into increasing access points in the hallways of the 17 schools, and increasing bandwidth for the approximately 8,600 students and 450 certified staff that needed online access.

While these were stepping stones, it had become clear to Sheppard by 2012 that the district needed to take a bigger step and convert to
a one-to-one model. “We started to look at state summative results,” he says, “and when we began to see a little bit of growth, principals got excited.” In Sheppard’s eyes, every student should be equipped with a piece of technology so they can access their digital content whenever they need it.

But more plans demanded more money—and those Title 1 funds weren’t around anymore, as the initial purchase of devices in 2009 had soaked it all up. Principals had started to adjust their school site budgets to purchase, but Sheppard knew that wasn’t enough. The district would have to be more aggressive with finding the money.

**FINDING THE MONEY FOR THE JOB**

The district’s chief financial officer advised administrators they would need to raise a bond to fund the one-to-one initiative. The Yuma community would vote on the $22 million bond (as part of general elections), which would be designated to pay for school technology, safety and general maintenance of buildings (including one that was more than 100 years old).

According to Assistant Superintendent Suzanne Alka, to raise support for the bond, the district sent flyers out to community members and worked to spread the word in every way they could think of. Sheppard and his team held four informational meetings to give constituents the facts about the bond proposal. The team also went door-to-door to speak with retired voters. “They don’t have kids in the district, so we really had to talk directly with them about the bond,” Sheppard says.

The efforts paid off. The community understood the need and the district’s limited resources from the state, Alka says, and the bond was approved in November of 2014.

Out of the portion of the bond ($4.5 million) the district received for technology, $4.1 million went to iPads, teacher iPad-minis, and 300 Apple TVs, while $400,000 went to more infrastructure improvements. The district was able to purchase an iPad for every one of the 8,600 students, set up access to internet in every classroom and major school area, and increase bandwidth by 20GB of internet—across all schools in the district. The district now “had more bandwidth than the military [and hospitals] here.” Sheppard adds, “We’re [now] the largest users of bandwidth in our city.”
INVEST TIME IN PEOPLE, INSTEAD OF SPENDING MONEY ON NEW HIRES

In the move to using education technology, Sheppard says the district did a lot of restructuring in order to get everyone up to speed on new tools. Bond money cannot be spent on human capital, so Sheppard had to get creative.

One of the biggest challenges to the nine-year march toward one-to-one came in the form of teacher knowledge, or the lack thereof, Sheppard says. Not all teachers were proficient or comfortable with using technology. “I didn’t realize how many ‘deer in the headlights’ we had,” he says.

In order to help, the district dedicated the summer of 2015 to transition everyone with several training sessions. Digital content providers were brought in three times to run workshops (the cost of which was often bundled with the software the district had already purchased), and teachers were paid to attend, getting to choose which workshops to participate in. Another several days were set aside over the summer to work with teachers more closely on how to use the devices with students.

“We planned to spend about $300 per teacher, so we allocated about $100,000 of our budget to go towards summertime pay while teachers were in PD,” Sheppard says. “We also gave professional growth units to any teacher who we felt went above and beyond that summer.”

To save additional money, the district refrained from finding new hires, so it looked within for technology champions—and found them in the form of para-librarians. These employees became the leaders on campuses to assist with distributing and troubleshooting technologies, which included iPads and some other devices.

And the PD didn’t stop over the summer. With the purchase of so many iPads, Apple also included
four days of training each month during 2015–2016. As a result, teachers could ask questions or clarify iPad practices throughout that first year of districtwide iPads.

**KEEPING THE MONEY FLOWING**

Since incorporating these initiatives, Sheppard says the academic results have been promising. English Language Arts scores have gone up significantly; math scores are on their way up as well.

Over the long-term, Sheppard says that the district is planning on maintaining and refreshing the iPads, which are expected to have three-year life cycles. The “plan is not completely solidified” on how to acquire and distribute more funds for this, but Sheppard says that it will come in the mix of district money and supplemental funds from Title 1.

As far as advice to other districts, Sheppard says to focus spending on devices, infrastructure, and strong digital content. But when it comes to human capital, districts already have what they need. “We chose to go big. We already had the right people in place, and with some training, they were ready,” Sheppard says.

**FOR MORE READING**

Curious to learn more about Yuma? Check out Suzanne Alka’s piece on EdSurge about district public vs. charter schools.
Before 2014, District of Columbia Public School (DCPS) educators often returned from professional development (PD) days feeling like they had attended the same reading session several years in a row, without getting the content they needed to grow in their careers. Simultaneously, student performance data showed that PD was helping neither new teachers nor teachers whose skill development had peaked or stagnated.

To solve these problems, the district realized that it needed to focus on making PD more personal for teachers—and it started with a program called “myPD.”

**A NEW PD MODEL THAT GIVES TEACHERS CHOICES**

In an effort to figure out an effective district-wide approach to professional development, DCPS decided to make a big move centered around teacher choice. Armed with $5 million from a 2013 iPD grant from the Bill & Melinda Gates Foundation, DCPS launched the myPD program in the summer of 2014 to redefine professional development. The myPD model was implemented in ten schools during the 2014–2015 school year.

MyPD offered teachers a menu of PD activities, each of which last between six and 10 weeks. In contrast to the traditional PD model, which often prescribed a single PD experience to all teachers, schools implementing this iteration allow teachers to pick and choose what they needed, whether it’s an online module or virtual coaching, personalizing training for teachers. Every two weeks, teachers check
in with mentors who record progress on BloomBoard. There is a 
self-evaluation at the end, and from there, teachers can continue 
the same activity, or move on to something else.

After the pilot year with myPD, DCPS leaders gathered learnings 
about the type of professional development teachers wanted 
most. Personalization was important, but teachers also craved 
opportunities to work together. “While teachers like being able 
to work more autonomously, they really missed the time for 
collaboration with their content peers,” says Paige Hoffman, 
manager of innovation and design for DCPS. MyPD also required a 
lot of district resources and a high level of effort from instructional 
coaches with very frequent school visits; a real worry was that the 
model wasn’t scalable across the entire district.

At the end of the 2014–2015 school year, DCPS leaders knew it was 
time for another shift.

USING LESSONS LEARNED TO LAUNCH FORWARD

In response to the lessons learned and problems identified, the 
district decided to build a new and improved PD model called “LEAP,” 
which stands for “Learning Together to Advance our Practice.”

In 2015–2016, DCPS embarked on a “research year” to test out 
various aspects of the model. Hoffman and the rest of the innovation 
and design team visited over 40 schools in the fall. In addition, the 
team selected three schools to be “shadowed,” where team members 
would visit each one multiple times a week. During the visits, they 
attended planning meetings, held one-on-one meetings with 
teachers and students, and observed lessons to get an inside look at 
the student and teacher experience.

“While teachers like being able to work more autonomously, they 
really missed the time for collaboration with their content peers.”

Paige Hoffman, Manager of Innovation and Design at DCPS
During this research year, Hoffman says, “We were really thinking about how we could build capacity within schools to provide more content-focused coaching and also provide more resources and structures to support school leaders in creating time and systems that would allow for collaboration with teachers.”

By the end of the 2015–2016 school year, Hoffman and her team had created LEAP. The program champions the notion (with supporting research) that if teachers spend time every week with their peers focusing on academic content behind upcoming lessons and concepts—rather than in general trainings on classroom management—they’ll be more effective at teaching and helping students meet Common Core standards. Three main shifts colored the move from the myPD program to LEAP, as LEAP contains:

1. A focus on general content-agnostic pedagogy;
2. Movement towards PD at the school level, rather than centrally-based PD; and
3. An adult learning curriculum that provides teachers and school leaders with a set of extensive modules for weekly team meetings.

**A LOOK INSIDE LEAP**

For the duration of the 2016–2017 school year, all 115 DCPS schools are implementing the LEAP program. Here’s how it works.

To move PD to the school level, LEAP brings members of the school community together by grade level and content area to strengthen content knowledge. These teams, typically composed of three to six (but up to 10) teachers, are led by a team leader that can be an administrator, instructional coach or teacher leader. Teams meet weekly to collaborate and improve their instruction. Each team goes through a three-part cycle every week: LEAP Seminar, LEAP Observation and LEAP 5P Debrief, in that order.

One aspect of LEAP that makes it unique is its adult learning curriculum, which takes the form of a series of extensive modules that include full lesson plans and handouts for each
week. Think of it as a unit of study that includes between six and eight weeks of LEAP content. Team leaders are encouraged to use these modules as a starting point to guide their seminar and tweak them to make them more personal.

During the first part of the weekly cycle, teachers participate in a 90-minute seminar where LEAP teams meet and talk about content knowledge and Common Core-aligned teaching practices. Of the 90 minutes, 30 to 45 are used for planning to incorporate learning into upcoming lessons. Each week focuses on a different topic, such as the role of academic vocabulary or what makes a text complex.

In the second part of the cycle, LEAP Observation, the team leader observes each teacher on the team for 15 minutes. This is an opportunity for teachers to showcase their growth, test out new strategies and ensure that the feedback they are receiving is based on what they are actually working on in their teaching practice. Leaders take notes from the observation on the LEAP platform, an online system called Whetstone, which allows teachers and leaders to track all their observations, action steps and resources in one place.

The 5P Debrief is the third and last part of each weekly cycle and is used to discuss the observation. It is a 30 to 45 minute meeting between each teacher and the team leader. Leaders review what is going well, discuss the lessons and student work, and pick a specific goal to work on for the following week.

Hoffman is excited to see how educators progress this year with LEAP as a foundation, but has already garnered a big lesson from the last few years: implementing good PD takes time. The key has been trying to meet the needs of schools without overwhelming teachers as they scale the program from the previous year’s pilot model.

“We’re just beginning to scratch the surface of it ... It’s not unfamiliar. This feels like what we’ve been doing but with more resources and support than we’ve ever had,” she says. “It’s very exciting that we’re not reinventing the wheel. What we’ve done is taken the wheel and made it a little bit stronger for folks.”

FOR MORE READING
Curious to read more about D.C. Public Schools? Check out this EdSurge article here on DCPS’s myPD platform.
CASE STUDY: What resources do we need to make this happen? / How do we prepare our community for redesign?

LINDSAY UNIFIED PUBLIC SCHOOLS

POLICY AND COMMUNICATIONS

Reaching Every Stakeholder

Communicate, communicate, communicate. When organizations are trying to engineer a turnaround or cope with a crisis, that’s the top advice their leaders receive. When families are struggling to make sense of problems, communicate is the watchword. And, when districts or schools are embarking on radical change, there’s no better advice. That doesn’t mean it’s easy to do.

But visit Lindsay Unified Public Schools, a 4,200-student district in the outskirts of California’s rural Central Valley, and you’ll find a district that’s been communicating about its competency-based learning model with stakeholders (including policymakers, who often get left out of the conversation) for almost a decade.

COMMUNICATING TO POLICYMAKERS AND BOARD MEMBERS

According to five-year veteran superintendent Tom Rooney, who’s held various roles within the district for a total of 16 years, Lindsay used to send “forth a lot of kids and young adults into the world who are not ready to be effective contributors to society.” In 2007, frustrated by data that suggested that nine out of 10 of Lindsay valedictorians needed remedial courses in college, the district embarked on a radical redesign to move away from seat time and towards competency-based learning.

It began with conversation. According to Director of Advancement Barry Sommer, Lindsay pulled together everyone in the community—parents, teachers, union members, board members, business people—to ask: What should Lindsay graduates look like when they

Policy and Communications

DEFINITION
Policy: Identifying and creating a plan to influence state or district policies that must be shifted to support, scale and sustain these new models.

Communications: Communicating ideas and plans for the redesign with stakeholders such as staff, students and families.

# OF STUDENTS
4,200 (2016-2017)

# OF TEACHERS

PER PUPIL SPENDING

ETHNICITY
Hispanic or Latino: 91%
White: 6%
Other: 3% (2016-2017)

FREE OR REDUCED LUNCH (FRL)
100% (2016-2017)

ENGLISH LANGUAGE LEARNER (ELL)
50% (2016-2017)

% OF STUDENTS WITH INDIVIDUALIZED EDUCATION PLANS (IEP)
5%

HS GRADUATION RATE
87% (2016-2017)

STUDENTS ATTENDING 4-YEAR COLLEGES
2009: 7%
2016: 41%

TRANSFORMATION START YEAR
2007
leave the system? What core values and beliefs should students have? And how could all stakeholders work together toward those goals?

Rooney compiled the feedback into a **guiding blueprint** for a new competency-based system. The big goal was clear: Lindsay’s community wanted its students to demonstrate competencies in a variety of subjects to earn their diploma. But first, school leaders had to communicate the power of the changes to policy makers. When Rooney and his team examined the district and state policies on the books in 2007, they found that some would require big sacrifices in order to support a competency-based system.

“There have been a couple of policy issues that really fly in the face of a performance-based system,” Rooney says. “We’ve have to modify them… Policies help people organize things nicely, but they have nothing to do with learning. It’s an administrative convenience.”

For starters, given that the existing policy could “pass learners through the system without demonstrating competency,” as Rooney describes, the district’s four-year high school graduation and attendance requirements were a problem, especially when reporting graduation numbers correlated to both funding and public perception. Even Lindsay’s scoring system was problematic. Board policy required that the district grade on curves, and give some students zeros.

“How does this help students learn?” Rooney demanded. “Districts are measured on how many kids they get through in four years. Money comes to the district based on the ‘seat time’ factor and positive attendance. That’s an issue, and some district boards won’t let the district change to a competency-based model because it’ll keep the district from getting money.”

So, Rooney and his team began to communicate their goals to the board; they wanted to move away from grading curves and **Carnegie Units** (defined as 120 hours of time with an instructor), and instead, move toward non-letter scores and assessments related to learning objectives. With some convincing, the board approved. Rooney and his administrators also got the board to approve new district policies to give academic credit for non-academic work.

“There have been a couple of policy issues that really fly in the face of a performance-based system (...) We’ve have to modify them… Policies help people organize things nicely, but they have nothing to do with learning. It’s an administrative convenience.”

Tom Rooney, Superintendent

Students from Yuma Elementary School District One, where Title I funding and bonds were brought in to personalize learning | Credit: Yuma Elementary School District One

Finally, the team applied for waivers from California’s Department of Education related to reporting graduation rates. “We won’t have an official graduation rate this year on the website...”
because there was a technical issue between our program and the program software that the state uses,” Rooney says. “We have kids who come back for a fifth year, and in Lindsay, we say that’s good! If our graduation rate goes down because of the work we’re doing, we’re okay with that.”

COMMUNICATING WITH STAFF AND STAKEHOLDERS

Even though the district board bought into the lofty goal of competency education, school leaders knew they would have to “communicate and over-communicate” the strategy and changes to community members and staff, recalls Barry Sommer, the district’s Director of Advancement.

Every year since 2007, Sommer has held professional development sessions to inform and educate Lindsay’s teachers about competency-based teaching strategies, He even goes the extra step of holding office hours for teachers to discuss where they’re struggling and has published a set of competency-based learning FAQ’s.

Sommer has also been determined to reach all of Lindsay’s staff—including its 250 employees who drive buses, run the administration offices and staff the cafeterias. In 2015, he and his team created a series of videos (now available on YouTube) to “promote the curriculum and provide adult education” on competency-based learning.

And what about parents? To educate Lindsay parents, Sommer’s team created resources in both Spanish and English, and shared it on the district’s learning management system, “Empower,” which has a parent portal. (Nearly 50% of Lindsay’s parent community is Spanish-speaking.) Empower includes a playlist of 12–15 different topics, PowerPoints and videos on the competency-based system that any parent can access.

For the parents who respond better to in-person communication, there’s the Parent Empower team—a Spanish-speaking group of parents that teach others about the Lindsay program—as well as the Learner Empower team, a group of students who go through training on the competency-based system and serve as ambassadors of the program.

Lindsay also started a Communications Campaign Committee (CCC), which includes students and parents, in the fall of 2013 when it received a Race To The Top grant to “replicate” the competency-based program. Each year, the CCC takes on a project to help the residents of Lindsay, and those outside the district, understand the district’s approach. Two years ago, the CCC started the annual Lindsay film festival, where students write, produce, develop and

"Distances are measured on how many kids they get through in four years. Money comes to the district based on the ‘seat time’ factor and positive attendance. That’s an issue, and some district boards won’t let the district change to a competency-based model because it’ll keep the district from getting money.

Tom Rooney, Superintendent
shoot videos about their lifelong learning standards. “If you want to get a message across, put learners in front of adults,” Sommers says.

**MOVING FORWARD**

Even with a deliberate and energetic communications program, not everyone supported the change to competency-based learning. “It’s been difficult to retain staff...When we shifted, there were a lot of people mired in the old system,” Sommer says. “This new system can be very demanding on the part of adult, and not everyone believes that every child can learn.”

But there’s evidence that the program is making a significant difference in students’ lives. Before 2010, about 20% of Lindsay graduates went to four-year colleges, while in 2015, it was 41%. Of the first graduating class after Lindsay switched to the competency model, 57% of students are on track to get their college degree in four years; before that, it was close to 7%. And while Sommer admits that those successes might not be directly related to policy change and communication, he’s confident that those efforts have contributed to an overall shift in growth mindset.

“This is really difficult work, but having a growth mindset is what’s brought us our success. As long as you yourself have a growth mindset, everyone will start to believe.”

**FOR MORE READING**

Curious to continue reading about Lindsay? Check out this [EdSurge article](#) or [this piece by Superintendent Rooney on community](#). The Learning Accelerator also recently published an [inside look at Lindsay High School](#) and its blended practices.
How do we prepare our community for redesign?

D.C. PS
Shifting Professional Development Models

Read the case study on page 53.

LINDSAY UNIFIED PS
Reaching Every Stakeholder

Read the case study on page 57.
How do we implement these changes?

TAYLOR COUNTY PS
Turning Words and Ideas Into Action

IMPLEMENTATION SUPPORT

Read the case study on page 10.

MILPITAS PS
When Change (Management) is a Constant

CHANGE MANAGEMENT

Read the case study on page 19.
Chapter 4: Peeking Inside Schools and Districts

How do we scale and improve?

HYBRID HIGH / EDNOVATE

Reflecting, Iterating, Improving

REFLECTION AND ITERATION

Baltimore County PS

Share and Tell, Tweet All About It

SHARE TO GROW A COMMUNITY OF PRACTICE
CASE STUDY: How do we scale and improve?

Chapter 4: Peeking Inside Schools and Districts

EDNOVATE AND HYBRID HIGH

Reflection & Iteration

Reflecting, Iterating, Improving

Things don’t always work out as planned when it comes to technology in schools; that’s when reflection and iteration count the most. There are a few schools that particularly embody this lesson, including USC Hybrid High.

In April 2014, EdSurge visited the Los Angeles school and discovered that edtech isn’t necessarily the silver bullet many think it will be. The governing organization, Ednovate, that oversees Hybrid High, was in the early stages of overhauling the technology it relied on as well as who chose it. After a rocky first year at the high school, Ednovate ultimately put the power of selection into the hands of its teachers. Two years later, all of the students in Hybrid High’s first senior class graduated. Here’s how it happened.

DECIDING TO MAKE BIG CHANGES

According to Hybrid High’s charter petition, its founders wanted to “redesign the learning environment” with a focus on self-paced blended learning that delivered on one of USC’s research findings: “Increased time on the right instructional task increases academic achievement for at-risk students.”

In September 2013, the school opened with an inaugural class of 124 ninth-grade students drawn from across the Los Angeles region. But by the spring, instead of demonstrating what students had learned, MAP tests indicated that the percent of Hybrid High students who scored as “proficient” had dropped in every subject.

To face this problem head-on, board member and USC Rossier School of Ed Dean Karen Gallagher invited Chicago-based Oliver Sicat, then...
Chief Portfolio Officer at Chicago Public Schools, to visit Hybrid High. After 60 hours of observations and interviews with the staff, students, and parents, he felt he could draw some conclusions: “It seemed like the year was taxing for the whole staff. I think there was a lack of clarity in the vision and purpose of the model. Given that lack of clarity, it is hard to know what to measure and how to define the success of the model.”

The board invited him to fix the problem. That spring, he joined as interim co–principal of Hybrid High, and as CEO and president of Ednovate, the governing charter management organization that had been formed to oversee Hybrid High and other future schools.

**REFLECT—AND THEN DECIDE HOW TO IMPROVE**

When Sicat came in, he questioned the effectiveness of the technology in directing instruction. During that first year, as much as 90 percent of class time took place online with Apex Learning, recalls Mide (“Mr. Mac”) Macaulay, originally an earth science teacher.

Until the end of Hybrid High’s first year, administrators had largely been responsible for choosing the role that technology had played up. Sicat wanted to put the teachers back in charge. Technology wouldn’t be a focus; instead, Sicat wanted it to support the school’s broader goals. So, he outlined three core initiatives.

First, Sicat wanted teachers to prioritize and solve problems more systematically. Solving problems that aren’t important is too easy, he notes. So he posed three questions that he and his administrative team pledged to answer as they considered new initiatives, including adding technology to the school:

1. How do we better customize a learning experience for each individual student?
2. How do we get students to think critically about about college and their careers?
3. How do we create a sense of belonging so that students never feel alone?

With these guidelines for conducting more systematic problem-solving, the new model for Ednovate focused around giving choice and responsibility back to the educators, rather than to a platform like Apex.

Second, Sicat and Ednovate committed to supporting teachers’ choices about the tools they wanted to use in class, rather than mandating a single platform. The administration still chose schoolwide tech tools such as the Student Information Service used by all schools. (They standardized by using Illuminate.) But Sicat
also gave teachers $3,000 to spend on their software of choice. “Apex was left on the table, but it wasn’t the only option. Teachers could choose to use it this year,” Director of Strategy & Implementation Jessica Cohn explains. “If teachers wanted it, we subsidized it, as Apex would have far exceeded their classroom budget.”

Third, Sicat listened carefully as Hybrid High teachers shared with him the practices and changes that mattered to them—and subsequently helped spread those practices throughout the Ednovate network, which now includes three schools. “Frequent conversations and surveys helped us tune our model as we moved forward. We conducted quarterly surveys for students and staff, plenty of observations, video analysis of classes, direct observations, 1:1 laptop screening of student work,” and more, Sicat says.

Teachers agreed: “Oliver got input from all of us, the teachers, the administrators; he understood that we were laying the foundation,” says Christine Levinson, who was a grade level lead in 2014. “He would talk to us... but even better, he would question us.”

MORE SCHOOLS, MORE TO DISCUSS

Over the past three years, Ednovate has added two more schools to its network, and has plans to open another two in the fall of
2017. Sicat feels strongly about spreading this process of “reflect and iterate” to the newest additions to Ednovate, and has already led some charter system-wide iterations that affect all schools in the system. For instance, in 2016, Ednovate’s schools moved to a quarter system, without the traditional summer break.

“We looked at the data, and we talked to the staff. What we found was that with this schedule, teachers can better reflect, come together, look at the data, and share best practices,” Sicat says.

Not every change will involve technology, Sicat reiterates, but tech can “definitely be an enabler and a time saver” when it is used well in the “reflect and iterate” process. Software, for example, can sometimes free teachers and students from time-consuming administrative tasks. “We refer to it as the ‘micro-efficiencies’ of software,” Sicat says, “when things can happen quicker.”

Whatever role technology plays, Sicat stands behind his belief that change can only happen when teachers and administrators are both involved. And while not everyone is comfortable with change 100 percent of the time, Sicat knows that a little push and a lot of stakeholder engagement goes a long way. And of course, it helps to have educators who have been in both teacher and administrative roles—those leaders like Levinson, Cohn and Macaulay who can speak to where Hybrid High started.

“Looking at what you’ve done, and then changing it, is hard,” Levinson says, “but we’re relieved we made it, and we’re ready to keep pushing forward.”
CASE STUDY: How do we scale and improve?

Baltimore County Public Schools
Sharing to Grow a Community of Practice

Share and Tell: Tweet All About It

Elementary students at Mays Chapel Elementary School work at their own pace
Credit: Baltimore County Public Schools

One of the trickiest challenges when redesigning a school or district is one that many leaders put on the back burner—namely, creating buy-in, both from teachers and from families. In the case of Baltimore County Public Schools (BCPS), when the district began a huge leap to personalized learning, its leaders consciously designed a communications strategy to bring together students, teachers and families.

The strategy went beyond just sharing stories with families and teachers. It became the way BCPS told details about what had and hadn’t worked, so that other educators, schools and districts could garner tips and insights. And BCPS itself learned along the way that to be truly helpful to other educators, both the triumphs and the failures must be shared continually, authentically and transparently.

Let’s take a look at how BCPS shared those stories.

Creating (and Communicating About) the Lighthouse Schools Program

In 2013, BCPS launched a multi-year initiative called Student and Teachers Accessing Tomorrow (S.T.A.T.), which focuses on redesigning the learning environment with 21st century technology to meet the needs of modern learners. To make this shift, the district started by creating a pilot network of a few schools, dubbed “Lighthouse Schools,” that would experiment with transforming learning environments and essentially lead the way for the district.

Sharing to Grow a Community of Practice

Definition
Sharing to Grow a Community of Practice: Telling stories about what works and what doesn’t work so that other educators, schools and districts don’t need to reinvent the wheel.

# of Students
111,127 (2016-2017)

# of Teachers
8,904 (2016-2017)

Per Pupil Spending

Ethnicity
African American or Black: 38.9%
American Indian or Alaskan Native: 0.4%
Asian: 6.8%
Hispanic or Latino: 8.2%
Native Hawaiian or Pacific Islander: 0.1%
White: 41.1%
Two or More Races: 4.4% (2015-2016)

Free or Reduced Lunch (FRL)
46.8% (2014-2015)

English Language Learner (ELL)
3.9% (2015-2016)

% of Students with Individualized Education Plans (IEP)
11.5% (2015-2016)

HS Graduation Rate
87.78% (2015-2016)

Lighthouse Schools That Tweet
2013: 7
2016: 20

Transformation Start Year
2013
Three years ago, the pilot launched with ten elementary schools, and as of fall 2016, it has grown to include **20 schools** out of a total of 173 BCPS schools (ten elementary schools, seven middle schools and three high schools). According to the S.T.A.T. rollout plan, all schools would follow in the footsteps of Lighthouse Schools after the first pilot year, but Lighthouse would be the first to receive devices and new curricula. Additionally, a major focus of the pilot was to create various types of learner-centered environments, where students have choices around what and how they learn.

Baltimore County district and school leaders were acutely sensitive to the community’s reaction, which is why the district made communications a priority. As David Robb, Supervisor of the Office of Innovative Learning Projects at BCPS, says, the goal was to build relationships, especially with families, to provide a consistent message. He explains:

“Parents who were used to coming to Back-To-School night and sitting at their child’s assigned desk, would need to be educated on why the classroom looks different. There were misperceptions of the transformations that were occurring like the idea that one-to-one devices meant taking away opportunities for children to interact with their peers and teachers. It was important that we communicate these changes to parents and educators at other schools who will be following the Lighthouse Schools in the coming years.”

But here was the twist: Robb and his team had the courage to not only let, but encourage, everyone involved in the school transformation—including students, teachers, administrators, families and coaches—to share both their struggles and successes, create a sharing culture.

**HOW THE SHARING HAPPENED—AND GREW BEYOND THE DISTRICT**

The foundation of the communications strategy was laid back in 2013, when the original ten Lighthouse Schools began implementing their new designs. The district created two roles,
“Good News Ambassadors” and “Journey Representatives,” to support the effort to share stories from these pilot schools. The district also created a website devoted to BCPS Lighthouse Schools to centralize some of the storytelling, making it easy for teachers, administrators and families from other schools to get a glimpse inside the pilot schools. The website has four pages that tackle sharing in a variety of ways: reflections, journeys, learning and #BCPSLH.

At every Lighthouse School, the principal designates one “Good News Ambassador” to share the school’s story. These ambassadors recruit staff members to share their ideas using a bevy of communications tools.

Tweets can be just as powerful as they are a direct line to the community and beyond.

Katherine Cox, Instructional Coach at Mays Chapel Elementary
including social media outlets, school websites and the Lighthouse School’s reflections page. Pictures, videos, reflections—everything becomes an artifact to document the school journey.

Ambassadors post ideas and pictures of what is happening in their classrooms on Twitter, Facebook and Pinterest using the #BCPSLH and #BCPSSTAT hashtags. For instance, Jessica Wharton, an ambassador and instructional coach at Church Lane Elementary, celebrated teachers via the Twitter handle, @CLETS_STAT. As she weaves her way through classrooms supporting teachers with coaching and modeling instruction, Wharton tweets nuggets to spotlight teachers and students throughout the school—along with the tools they are using.

During the first phase of device roll out for each Lighthouse School, a “Journey Representative” is selected to share monthly reflections about their triumphs and challenges on the journey page of the lighthouse website. This rep can be a student, teacher, administrator or family member. Sydney Paules, for example, a 6th grade student at Pikesville Middle School shares her frustrations about files disappearing, but then describes how saving files to BCPSOne Drive (the district’s LMS) helped her solve the issue.

Twitter has become the most widely-used medium for sharing stories about BCPS. Writing up summaries of what goes on in class could seem like another burden on teachers, concedes Katherine Cox, a Lighthouse School instructional coach at Mays Chapel Elementary. Tweeting, by contrast, is easier.

“My teachers have always been dedicated to what they are doing in the classroom. It is very difficult for them to write about it on top of all they are doing to plan and prepare for their students,” Cox notes. “Instead, they tend to gravitate towards Twitter to share brief snippets. Tweets can be just as powerful as they are a direct line to the community and beyond.”

**IMPACT AND LESSONS LEARNED**

From the beginning, the S.T.A.T. initiative was laid out to expand into all BCPS schools over the course of five years. The communications efforts have supported this growth by giving schools that are new to the initiative a glimpse into the transformation before it starts at their school, increasing buy-in and setting them up for success.
“It is logistically impossible in a district our size to get over 8,000 teachers to physically visit a Lighthouse School,” says Robb. The Lighthouse website and stories enable the district to share visuals of what these new learning models look like in action. “[The] honest reflections can help ease the anxiety for the schools that are next in line. We get past the challenges, learn from them and become better teachers and students as a result.”

But while Twitter has played an integral in the transformation, connecting students, teachers, administrators and families, it’s also given districts and educators across the country an intimate view into the Lighthouse Schools pilot. In fact, since 2012, the (now) 20 Lighthouse Schools have produced almost 17,000 tweets and gained close to 8,000 Twitter followers, collectively. Church Lane Elementary alone has produced more than 2,500 tweets, despite being one of the later Lighthouse Schools to join Twitter.

Stats aside, when Cox reflects on the impact of this sharing culture, she notes that it isn’t just about praising effort. Instead, what makes sharing important is “the understanding that we are not in it alone.” Education is a collective effort among a variety of stakeholders across district borders and state lines—and it’s an effort that should be discussed and shared.

“We are all in this together,” she says. “We are all working to transform teaching and learning in order to do what we feel is best for our students.”
CONCLUSION

The structure of school does matter. As these portraits have shown, there is rich variety at this point in time in how communities of educators are constructing schools.

We know this to be true: The very best schools are filled with teachers who believe in the power of education to transform lives, and who believe in the capacity of their students to learn and grow. That’s been so since the days of one-room schoolhouses, and will likely continue to be the case no matter where and how we teach. “It’s that idealism, that idea that you can help other people,” observes Stanford University scholar, Larry Cuban. “That’s been something that good teachers have always had. And no matter what happens, they’ll continue to have it into the future.”

Well-designed tools can help educators realize the educational “best practices” put forth decades ago by researchers like Benjamin Bloom. Data from formative assessments can give teachers better insights into what each learner needs and so enable instructors to change strategies. Games and online collaborative projects allow educators to teach in ways that researchers believe can better engage students.

That said, the structure of school does matter. As these portraits have shown, there is rich variety at this point in time in how communities of educators are constructing schools.

REDEFINING WHAT WE TEACH

by AT&T

As schools redesign for the 21st century, so too must they re-think what they teach. One organization helping educators rethink curriculum is Code.org. Code.org provides resources for schools to incorporate computer science into their curriculum. AT&T, through its signature philanthropic initiative, AT&T Aspire, supports Code.org’s mission to equip students with the skills needed to succeed in the workforce of the future. More than 50 million students participated in Hour of Code in 2015.
A foundational ingredient of all schools, no matter what the final structure, is an education vision—something that starts with insightful school leaders. But acting on those beliefs demands a precise choreography of resources and people: the financials, the teachers and families, the physical layout of learning environments, and more.

Technology can play a critical role—but only when the technology supports the approach, the teaching philosophy and the goals that educators, students and families have agreed matters the most.

THINKING BEYOND THE CLASSROOM
by AT&T

While school time is critical, out of school experiences are also being re-defined. Imagination Foundation and AT&T are teaming up to challenge youth to create novel, imaginative and possibly viable solutions to a problem in their school or community. A common factor in the creations are the integration of science, technology, engineering, art and math (STEAM). The Inventor’s Challenge engages children outside of the classroom in STEAM tools and materials, alongside critical 21st century skills. AT&T supports today’s youth as they grow into the makers and builders of tomorrow.
The EdSurge team interviewed dozens of teachers, administrators and students for this part of our report. Their perspectives helped to inform follow-up research on each of the schools and districts. We also turned to many sources for data, including state departments of education, the National Center for Education Statistics and other sites.

To identify the schools we profiled, we searched through existing EdSurge articles, read profiles on other websites, and asked for recommendations through email, at edtech conferences and in our Facebook K-12 educator community. We aimed to reflect a diversity of perspectives, experience and geography through these profiles, and so we selected schools from: 1) rural, suburban and urban communities; 2) district public, charter and private school communities; and 3) the west coast, midwest, south, and east coast.

Among the more than 30 administrators and teachers we interviewed, there are educators from 11 U.S. states, serving students from many ethnicities and socioeconomic levels. These educators have between two to 41 years of classroom experience, ranging from kindergarten through high school as well as serving as administrators.

Please reach out to feedback@edsurge.com to share comments and ask questions, or if you are interested in being part of future research projects. If you have a story that you’d like to contribute about an innovative school model, fill out this form here.

Acknowledgments
“State of Edtech: How Schools Are Changing” reflects four months of research, interviews, surveys and data analysis by the EdSurge team. We are very thankful to the educators and industry experts who graciously shared their perspectives with us. We also deeply appreciate the support of the EdSurge staff, many of whom put tremendous energy into creating this report.

TEAM
Senior Editor: Mary Jo Madda
Project Manager: Paty Gomes
Engineer: Ceane La
UX Designer: Lise Chapman
Graphics: Marisa Kaplan, Richard Nattoo
Writers: Mary Jo Madda, Amanda Ronan, Antoinette Siu, Elsie Simpliciano
Fact Checking: Marisa Kaplan, Mary Jo Madda
Copy Editing: Talia Goldman
Executive Editors: Betsy Corcoran, Mary Jo Madda
Project Advisors: Howard Kao, Tyler McNally, Christina Quattrocchi, Agustin Vilaseca