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Summit Keynote

Advancing Quality in Continuous Improvement

Anthony S. Bryk, President,
Carnegie Foundation for the Advancement of Teaching

Today we stand at a remarkable moment. Five years ago, when we gathered at the first improvement Summit, we came together to explore a compelling set of ideas about how educators might work in new and different ways to make real progress on educational outcomes that we deeply care about. In planning for that first Summit, we knew there was interest out in the field in learning more about improvement ideas, but we actually had little sense about who, or if anyone, for that matter, might actually show up. As in that famous line from the baseball movie *A Field of Dreams,* we wondered, "If we build it, will they come?"

For the first several weeks, we sat and waited and fretted a bit as registrations were slow to materialize. Then suddenly, at the end, we had to close registration, as the venue back then could not accommodate any more people.

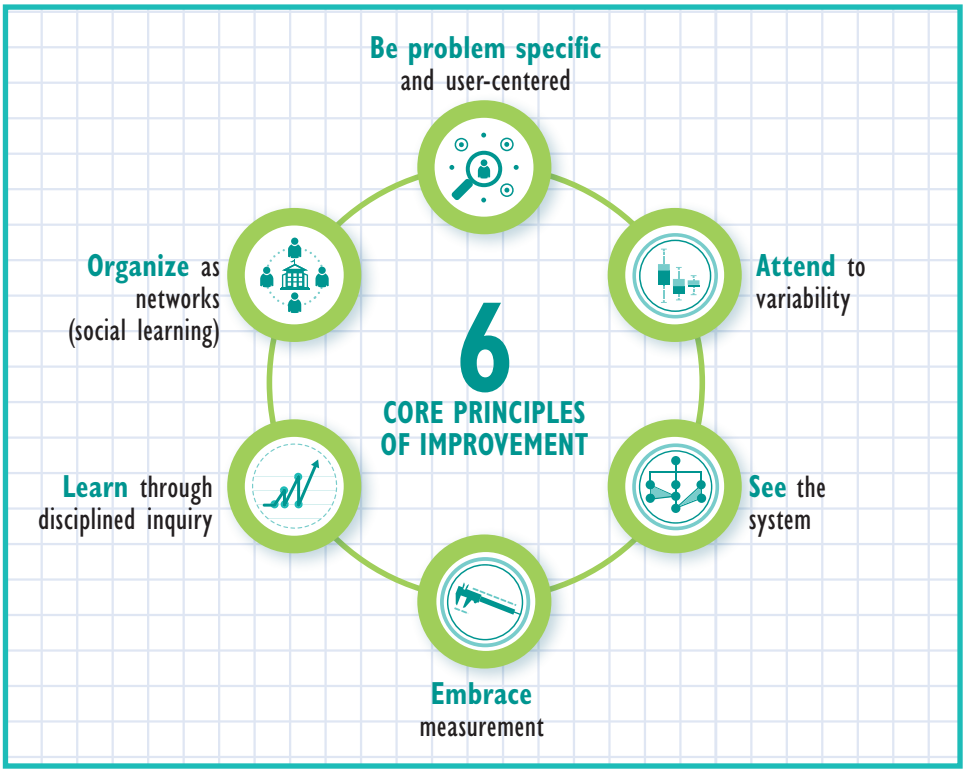
Looking back now on Summits I and II, I think of these first two events as a gathering of the curious and the early adopters. Participants shared a yearning for a better way and sensed that there was something interesting, maybe even powerful here, that might be worth learning more about.

The six improvement principles were introduced as a list of ideas at Summit I, but did not emerge as an integrated improvement paradigm until

Summit II. Hopefully, the improvement wheel is now becoming a well-recognized visualization in our community *(see Figure 1)*.

In brief, the educational systems that we have built, and the problems embedded within them today, are now so complex that few can solve them alone. We need coordinated, collective action involving educators, researchers, organizational leaders and often students, parents, and community leaders as well. So this is why we organize as *improvement networks*.

Figure 1: 6 core principles of improvement



Whether this activity occurs within a single school district involving a network of teachers or schools, or in a deliberately structured cross-organizational improvement network, you will see certain commonalities.

The work of improvement focuses in on a *specific problem* to be solved, and the defining characteristics of this problem are anchored in a deep understanding of the experiences of people actually engaged in the work. We call this idea being *user-centered*.

Participants bring laser-like focus on disparities in educational outcomes. They develop a shared working theory of improvement which is anchored in *seeing the system* that is creating this unsatisfactory *variability in performance*.

They use *common measures* and *inquiry tools* so as to be able to learn together whether the changes they are introducing are actually an improvement.

And there is deliberate effort at accumulating this practical knowledge, and making it quickly accessible for others to use, test, and further improve in their particular contexts. Through these *social learning* connections, we expand the overall capacity across our field to improve. We become a profession improving the work of the profession.

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So this landscape of ideas was fully set out at Summit II. As we moved into Summit III, a notable pivot occurred. The largest single groups were now teams from school districts, and an increasing number of presentations were coming from these teams focusing on their first efforts at using these ideas. People were still coming to the Summit to learn more, but also to begin sharing what they were doing and take on roles as critical friends toward each other. The dynamism in the meeting rooms, the gallery walks, and reception areas was palpable.

As our board chair at the time, Andrés Alonso, commented in our post-Summit III review meeting, "Carnegie is actually launching an improvement movement." And now, two years later, I can say without hesitation that this movement is growing into a national force.

The Summit program, and registration, continues to expand. Again we had to close off registration this year, as we hit the capacity for this venue.

Five years ago, these ideas were an intriguing possibility. Today they have moved to the center of educational reform. The Every Student Succeeds Act has devolved significant resources and authorities to states and districts with strong guidance to be evidence-based and to engage in continuous improvement.

Philanthropic institutions are committing increasing resources to initiating and growing improvement networks on targeted problems that they care deeply about.

Clearly, continuous improvement and improvement networks—where practitioners and researchers are working together—are "in the air." Consequently, we are in a very different place as a national educational community than just a few short years ago. Exciting learning-to-improve journeys are being initiated all across this land.

The energy and commitment that educators are bringing is truly infectious. Measurable progress is occurring, and the promise for the future is inspirational.

Your presence here, your eagerness to share accounts about your own work, and eagerness to learn from others provide strong testimony in this regard. You are the sustaining source for a collective hopefulness that we can indeed do better by all of our children. I applaud you.

WHY QUALITY IN THE ENACTMENT OF THE IMPROVEMENT PRINCIPLES REALLY MATTERS

Now maybe I should just quit here, but in truth, I can't. When in my more private moments, I reflect on the rapid take-up of these ideas over the last couple of years, I confess that I also start to worry a bit.

Having been directly involved in school improvement efforts for over three decades, I have seen a lot of good ideas, and a few not-so-good ideas, come and go. I am very hopeful about the possibilities ahead for all of us, but I am also a critical realist.

The realist voice reminds me that the history of educational reforms is replete with good ideas moving rapidly out into the field. These ideas can generate a lot of excitement, but often are not taken up with sufficient integrity to actually work. We tend to implement wide and fast, but fail to allow sufficient time and create sufficient support for educators to actually learn how to work in these new ways.

In each instance, the promise seemed great, but problems also manifested quickly, frustrations grew, results disappointed, and then we abandoned the idea and went on to the next new idea.

This perspective augurs a critical standpoint for us as a community: Unless as a field, we commit to developing the necessary human capabilities and enable the necessary institutional supports for you in this work, improvement science and improvement networks could become just the next chapter in this rather dismal reform history.

Carnegie Senior Fellow Don Peurach has studied this process of how promising reforms get watered down and, in the course of doing so, lose their essential vitality. Over time they take on the form of "ritualized rationality"—a compliance-oriented behavior.

We start using new words like improvement science. We might adopt some new routines like a root cause analysis, but these efforts might, nonetheless, have the character of a rather mechanical "going through the motions." We don't fundamentally change how we think and act in our professional lives.

Let me offer a couple of examples to try to make this a bit more concrete. Over the last couple of years, I have had opportunities to interact with a number of different groups who have heard about improvement science and networked improvement communities.

One response I sometimes hear is, "Oh, we are already doing that." Really? "Oh yes, at the end of every year, we look at our accountability data and we talk together as a faculty about it and then discuss some new things that we might try the next year." So the annual school improvement plan has become "continuous improvement." New labels are now being attached to old practices.

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Here is a second and more nuanced version of ritualized rationality in action. I had an opportunity to spend half a day with a terrific team of educators who came together to improve the slow and cumbersome system by which children are identified and referred for supplemental support, up to and including a possible special education placement. They all had dog-eared copies of *Learning to Improve,* but they were also working within an organizational ecology where improvement science was not yet the norm.

Now, as they began their work, they quickly recognized that there are a lot of steps in the process of getting children into the support services they need.

Not surprisingly, a struggling child can "fall through the cracks" in many different places. Paperwork isn't completed on time. A meeting gets canceled and has to be rescheduled. The person who is supposed to follow up after the meeting is overwhelmed, and so this new case just gets added to the bottom of an already very deep pile. Parents need to be engaged, and this can introduce further delays. All along the way, the child continues to struggle, and the year just keeps moving on.

I asked them about the data they were using to guide their improvement work—it was the percentage of students successfully placed by the end of the year. Most of their change ideas, however, were directed toward a set of processes that were happening every day or at least every week. So the work stream was actually generating evidence that could inform improvement, but they were not capturing it. The team is making changes and believes in the efficacy of what they are doing. But they lack a systematic way to learn whether the specific changes they are introducing are actually an improvement.

So in this particular instantiation of ritualized rationality, change efforts are embraced, but remain largely unguided by the kind of evidence that might actually catalyze continuous improvement.

How then do we move beyond all of this? Well, fortunately, we do know something about why this tends to happen.

Environments fail to provide people with coherent and extended opportunities to learn to work in different ways.

In general, people succumb to ritualized rationality because their environment fails to provide them with the coherent and extended opportunities they need to learn to work in different ways. So, they tend to fall back on what they have been accustomed to doing even while appropriating some new names for it.

And so this is where the theme for this year's Summit, *Advancing Quality in Continuous Improvement,* took its roots. We wanted to create more opportunities here for you to talk to colleagues deeply engaged in such work, to ask them about why they do their work as they do, and to explore with them what their learning-to-improve journeys have been like. This orientation strongly shaped the formation of the various breakout sessions that you will have an opportunity to visit over the next two days.

In addition, we are bringing forward, for the first time, a new set of sessions, "Spotlights on Quality in Continuous Improvement."

Each of these sessions provides an opportunity for a more in-depth look at the work of a single organization. We issued a call for applications for these sessions early last summer. Each applicant needed to provide evidence of measurable improvement on some important student outcome, and was also asked to detail how the improvement principles were guiding their work. A committee carefully reviewed the submissions and identified a broad and diverse set of examples of quality improvement work now happening out in our field.

These exemplars come from:

- Summit Public Schools,
- Fresno Unified School District and University of California, Merced,
- High Tech High,
- New Visions for Public Schools,
- AIR's Better Math Teaching Network,
- National Writing Project, and
- The School District of Menomonee Falls.

Among these seven groups, some are attacking longstanding inequities in traditional educational outcomes while others are taking up the challenges posed by new state standards to advance more ambitious student learning goals. Some are relatively early in this work; others quite mature. Some are in major urban centers, others in rural communities, and still others in places in between.

Each of these groups is making real progress but all of them also remain quite humble about their efforts, acknowledging that they are on an improvement journey and still have many miles to go. In this sense, these spotlight sessions offer dynamic portraits of improvement in action.

We are deeply grateful that these teams have offered to share the what, how, and why of their efforts. They afford all of us an opportunity to see the extraordinary in the ordinary day-to-day work of getting better. And in so doing, they enliven the spirit of networked improvement: all teach, all learn.

In this same spirit, as I have had an opportunity to reflect on their great work, four big quality lessons emerged for me. These four lessons form the remainder of my remarks today.

SPOTLIGHTS ON QUALITY IN CONTINUOUS IMPROVEMENT: FOUR BIG QUALITY LESSONS

Quality Lesson 1: Take Time to Really Understand the Problem You Have to Solve

Now what typically happens in our field is a concern arises about some educational issue, and almost immediately we start throwing a common set of solutions at it: more professional development, add a program, or maybe we will innovate and introduce some new technology.

Let's look at how one of our Spotlight teams, the team from Summit Public Schools, responded instead. Summit Public Schools has embraced an extraordinarily innovative agenda for high school reform: to enable and support students to become active agents of their own learning. They have moved away from the traditional egg-crate structure of a school to embrace a competency-based framework where students exercise choice in the work they do and move at their own pace to achieve well-articulated and measured learning outcomes.

Teachers are no longer front and center in classrooms, but can be found around school as counselors and advisors to students working at their own pace.

Now, the ideas here are very compelling, but making them actually work reliably every day for every student and in every school is an incredibly challenging task. Basically, the Summit team is in the process of totally reinventing the work of teaching and learning in the contemporary high school.

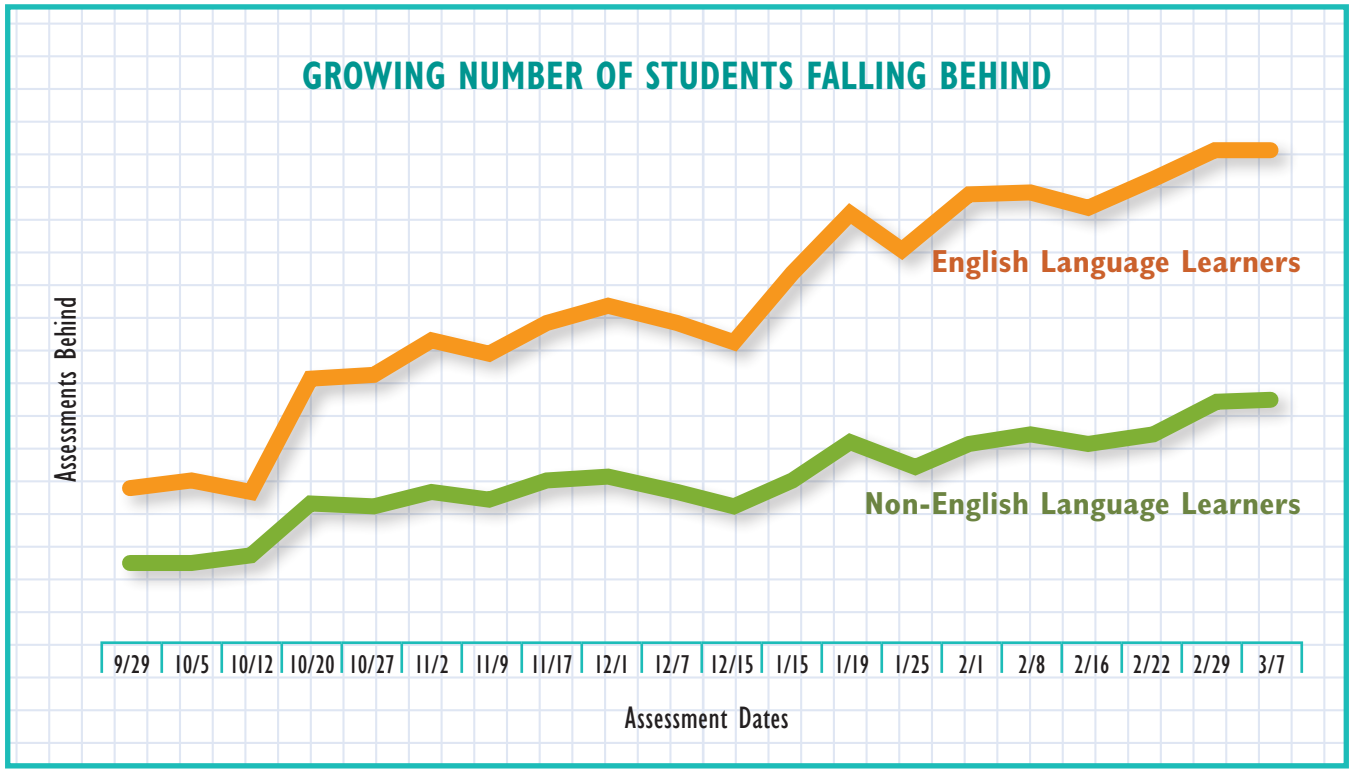
Not long into their work, the improvers at Summit encountered the problem of student incompletes. In a framework where students move at their own pace and where progress is marked by demonstrating competency on mastery assessments and against project-based performance rubrics, some students inevitably lag behind.

The Summit team took a quick look at their data to learn what they could about this problem. And when they did this, it became clear that the incidence of falling behind was much higher among English-language learner (ELL) students *(see Figure 2)*. This noticing precipitated three next steps. First, they went out and observed a subset of their teachers who were highly successful with this target group of students. Second, based on what they learned from this positive deviant analysis, they identified an initial set of change ideas. And then, third, they iteratively tested and refined these change ideas with teachers in other classrooms.

Over the course of their first year of improvement cycles, the Summit group reduced the rate of incompletes among ELL students by 50 percent. They were encouraged by this progress, but it was still not the full aim they sought to achieve.

So they turned back to the central investigative question: What is really going on here? What is the actual problem we have to solve?

Figure 2:
Growing number of students falling behind
Courtesy of Summit Public Schools



Some ELL students were still stuck and a fair number of non-ELL students were also struggling. The average incomplete rate had declined, but substantial variability in performance remained.

As they dug deeper, the Summit team began to see the problem in a new light. What originally was framed in ascriptive categorical terms—a gap in performance for ELL students—was transformed over time into an explanatory framework. Students with weaker reading and mathematics skills were more likely to struggle in their system.

This observation represents a pivotal turn in their learning journey. Their understanding of the problem to solve had evolved through their initial efforts at learning to improve. They now had a new path to follow for the work ahead.

Turning now to the improvement efforts in the Fresno Unified School District, Fresno is a majority Latino school community in California's Central Valley. The district aims to provide its graduates with the widest array of post-secondary options, but only a small number of students were actually applying to more selective post-secondary campuses. They were confronting an undermatching issue.

The Fresno team knew what outcomes they were generally after, but they did not know what it might take to actually achieve them.

To expand the flow of students graduating with the credentials needed to attend more selective colleges would require a carefully orchestrated series of improvement efforts playing out over time.

In organizational terms, Fresno was tackling a pipeline problem. At multiple different junctures in moving from high school entry to college-going, students were falling through the cracks. To expand the flow of students graduating with the credentials needed to attend more selective colleges would require a carefully orchestrated series of improvement efforts playing out over time *(see Figure 3)*.

Throughout their work on this problem, the Fresno team kept their eyes on "seeing the system"—how various processes were producing the unsatisfactory outcomes they regularly observed, and then tackling each specific problem, one by one.

The first problem they attacked was to increase the number of students enrolled in college-eligible courses, referred to in California as the "A to G" requirements. They knew that failure to enroll in the right high school classes immediately limits students' college-going opportunities.

Next, high school counselors received additional resources to assist them in advancing the district's more ambitious goals, and principals were also engaged to ensure their support for the initiative as well.

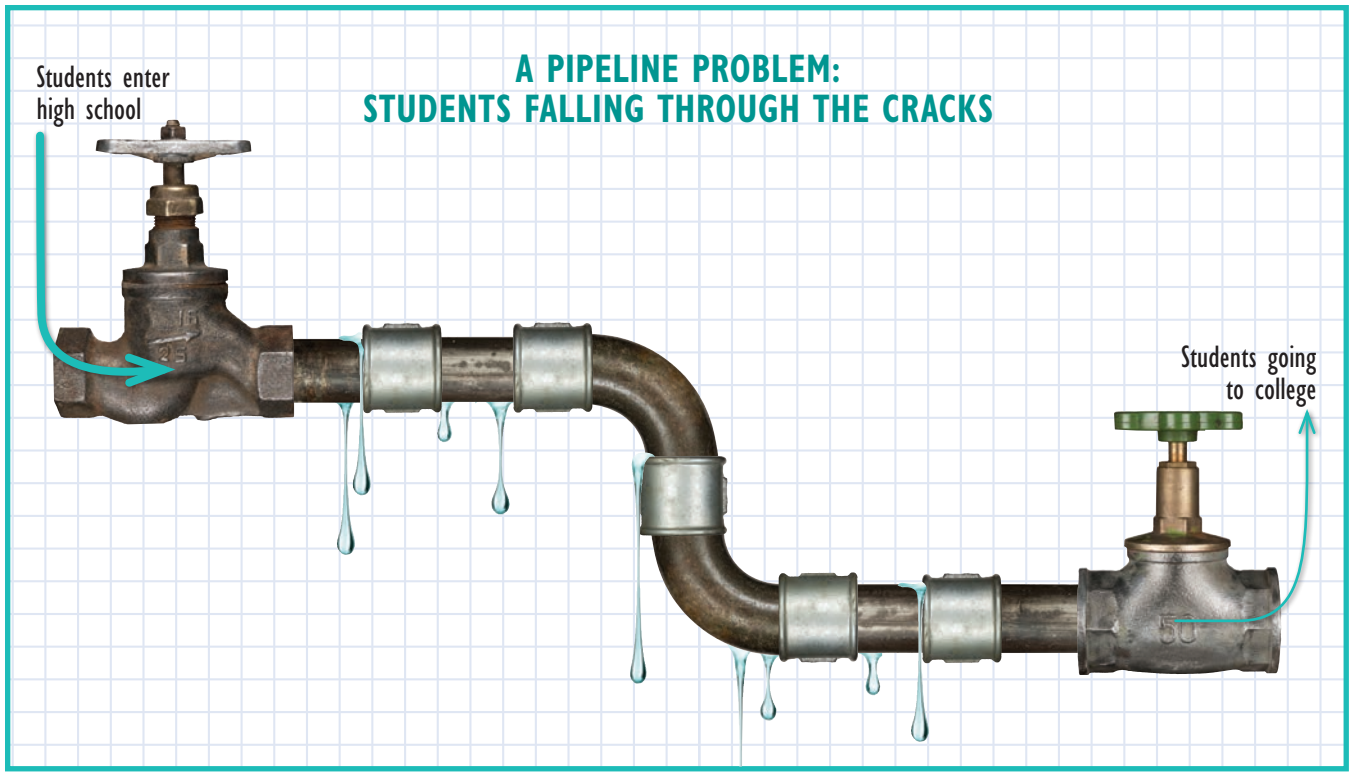


Figure 3:
A pipeline problem: students falling through the cracks

Then a summer program was added to assist struggling students to stay on track with their coursework.

Subsequently, they struck an agreement with ETS so that the SAT entrance exam was administered during the school day, rather than a weekend, and at students' home schools rather than in some strange and less welcoming environment.

And then they focused in on improving the processes most immediately connected to their goal: supporting students through the application process, staying connected with them through college registration in the spring, and then, lastly, attacking "summer melt" to ensure that students actually enrolled in college the following fall *(Figure 4 illustrates this system of improvements)*.

And all of this, in turn, was fueled by new data systems and tools to assure that the right information flowed to the right school staff to assure that timely personal outreach to each student and family was initiated and maintained.

Their improvements over the last three years are impressive—a 51 percent increase in students now eligible to apply to a California State University or University of California campus, and a 26 percent increase in students actually enrolling in these institutions.

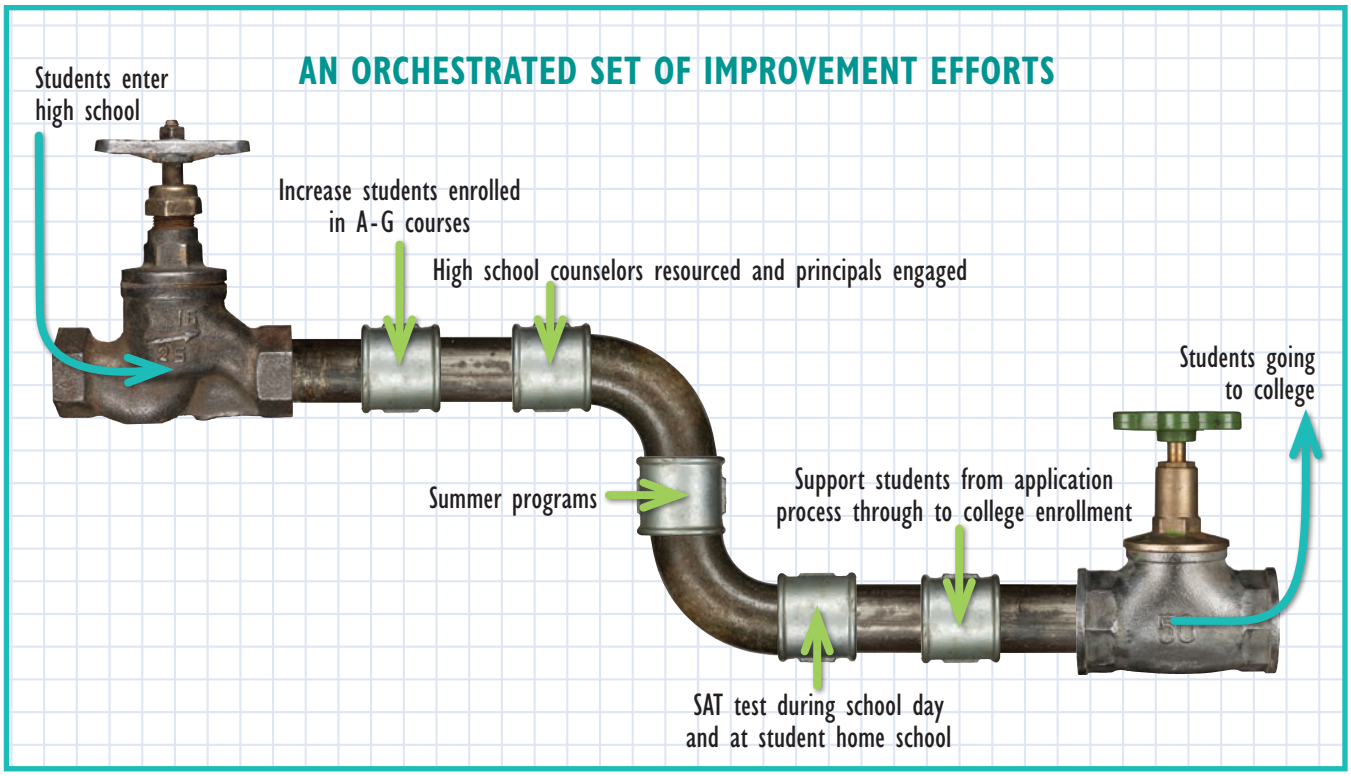


Figure 4:
An orchestrated set of improvement efforts

Today, Fresno's Equity and Access office continues to use improvement principles as they tackle new issues. A key architect in the original work in Fresno, Jorge Aguilar, has now become the superintendent of the Sacramento City Unified School District. Today he is taking on a new and even bigger challenge of integrating improvement science into the cultural fabric of the overall school system he now leads.

Quality Lesson 2: Developing Evidence That Truly Informs Improvement

This lesson is especially vibrant in the work of High Tech High, whose home base is in San Diego, and in New Visions for Public Schools in New York City. Both organizations are trying to intervene strategically to keep more students on track for high school graduation.

Organizing evidence to inform strategic thinking proves critical in chartering the work of an improvement team.

At first encounter, improving high school graduation rates seems like a daunting problem. Where do you start?

What are the root causes and what are the "right ones?"—right in the sense that we think we can do something about these, and if we do, we have good reason to believe that we can achieve large measurable improvement.

Organizing evidence to inform this kind of strategic thinking proves critical in chartering the work of an improvement team.

Now the annual graduation rate (or correspondingly, the school dropout rate) is the traditional accountability indicator that systems typically report for each school every year. In the context of improvement science, we would call this a lagging indicator.

Yes, it is ultimately what we are interested in improving, but these data come in as a post mortem—the students are literally gone. The team at High Tech High realized that they would need something more, something different to propel their improvement work forward.

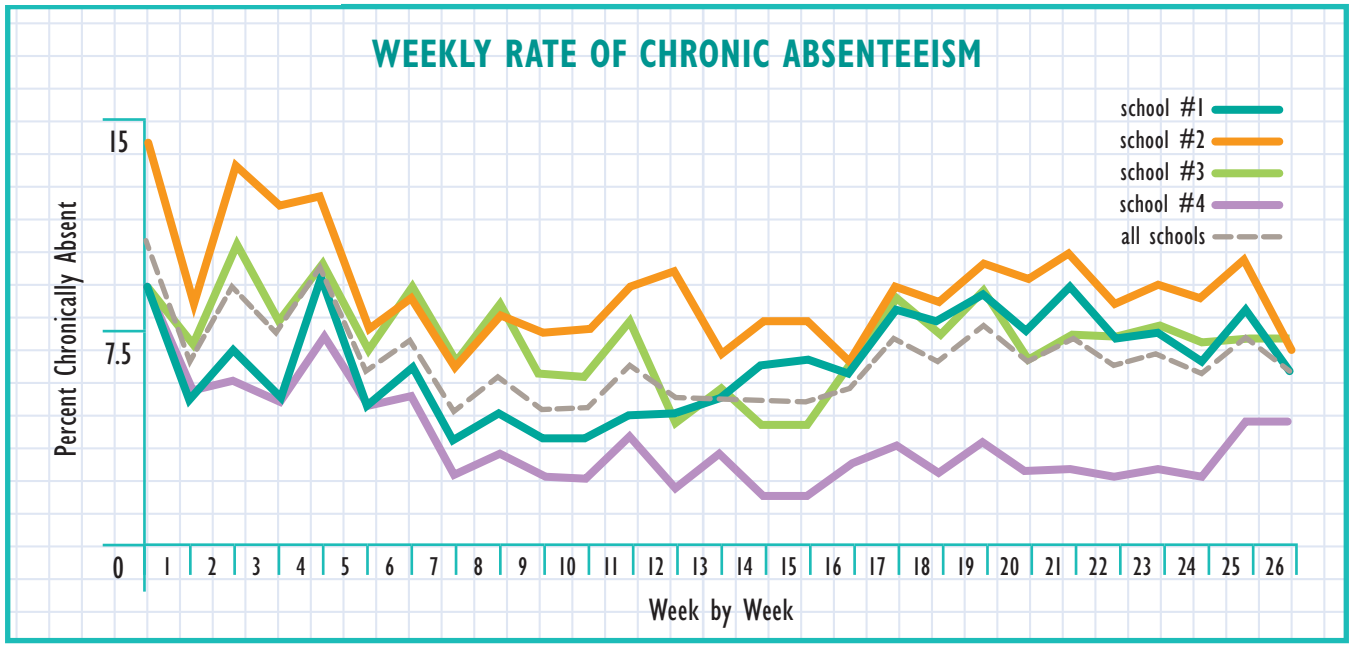
Extant academic research proved a significant shaping influence in this regard. Multiple studies document that chronic student absenteeism (e.g., when a student is absent 10 percent of the time or more) is by far the strongest predictor of a student subsequently dropping out of high school.

So, in contrast to the lagging indicator of graduation rates, knowing that a student is chronically absent or that the chronic absenteeism rate is especially high in a particular school or among a particular group of students functions as a leading indicator in an improvement science framework.

It predicts what we care about—likelihood of subsequently dropping out—but it is now evidence about events happening in real time that educators, in principle, might be able to do something about.

As the High Tech High team developed and tested change ideas in this area, data streams on week-by-week chronic absenteeism also now functioned as a key improvement indicator as to whether their change efforts were heading in the right direction *(see Figure 5)*.

Figure 5:
Weekly rate of chronic absenteeism
Courtesy of High Tech High



Now once you call out something like this, it may seem very straightforward; but prior to the spread of improvement thinking, few schools and districts paid much attention to these kinds of data.

Turning toward New Visions' learning journey on this same problem, they followed a related but different path. Their big breakthrough was in seeing how to explicate what was hidden in the traditional accountability reports. They explored data on individual student progress to graduation in a number of different ways, and an important insight emerged.

There were a fair number of students who were getting to their senior year, acquiring credits in a timely fashion and even passing some Regents exams, yet not graduating the following spring. How could this happen?

By looking at existing data, but now in very different ways, it set them on a course of eventually creating a whole new set of improvement measures and visualizations directly focused on the problems they now understood they needed to address.

Here, by the way, is the original Eureka insight display developed by Mark Dunetz and his colleagues *(see Figure 6)*.

They organized information on school graduation rates for different subgroups of students in a set of box plots. On the right side of Figure 6 are

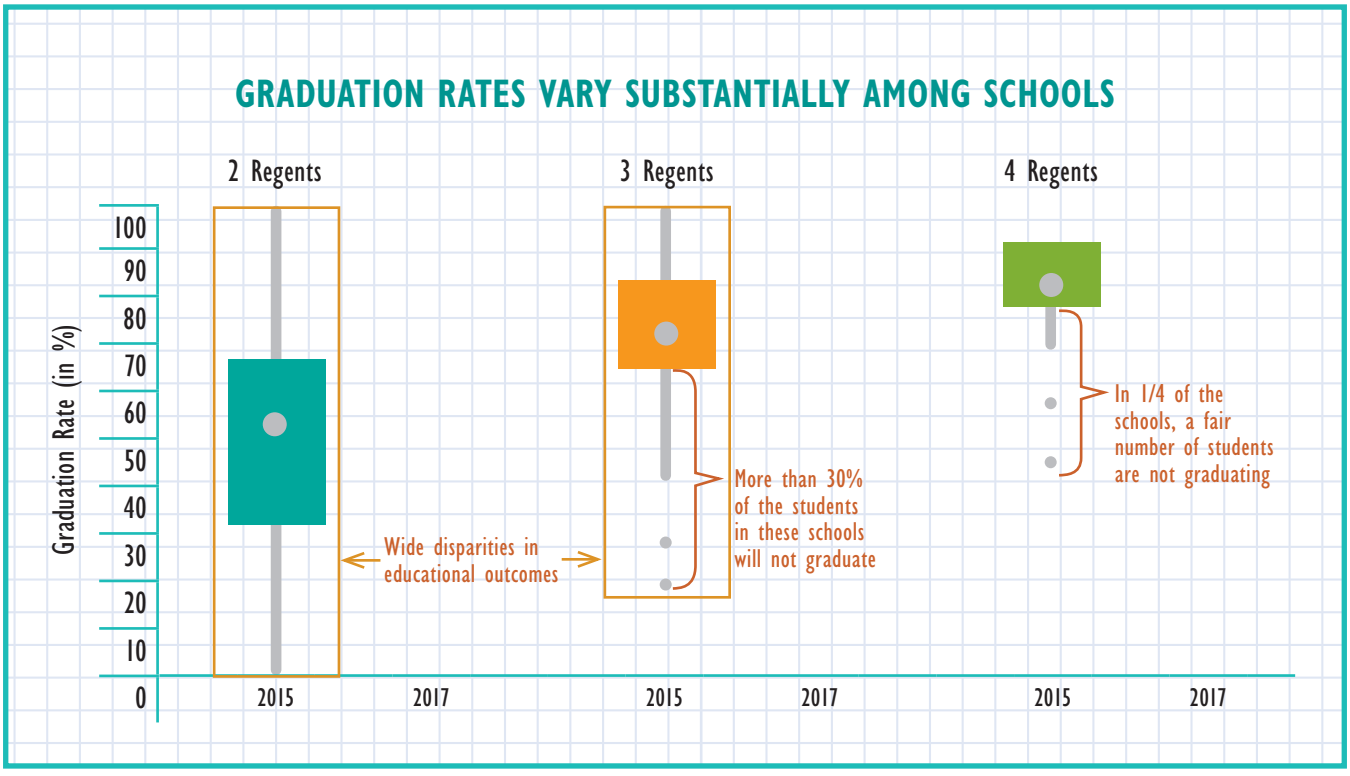


Figure 6:
Graduation rates vary substantially among schools
Courtesy of New Visions for Public Schools

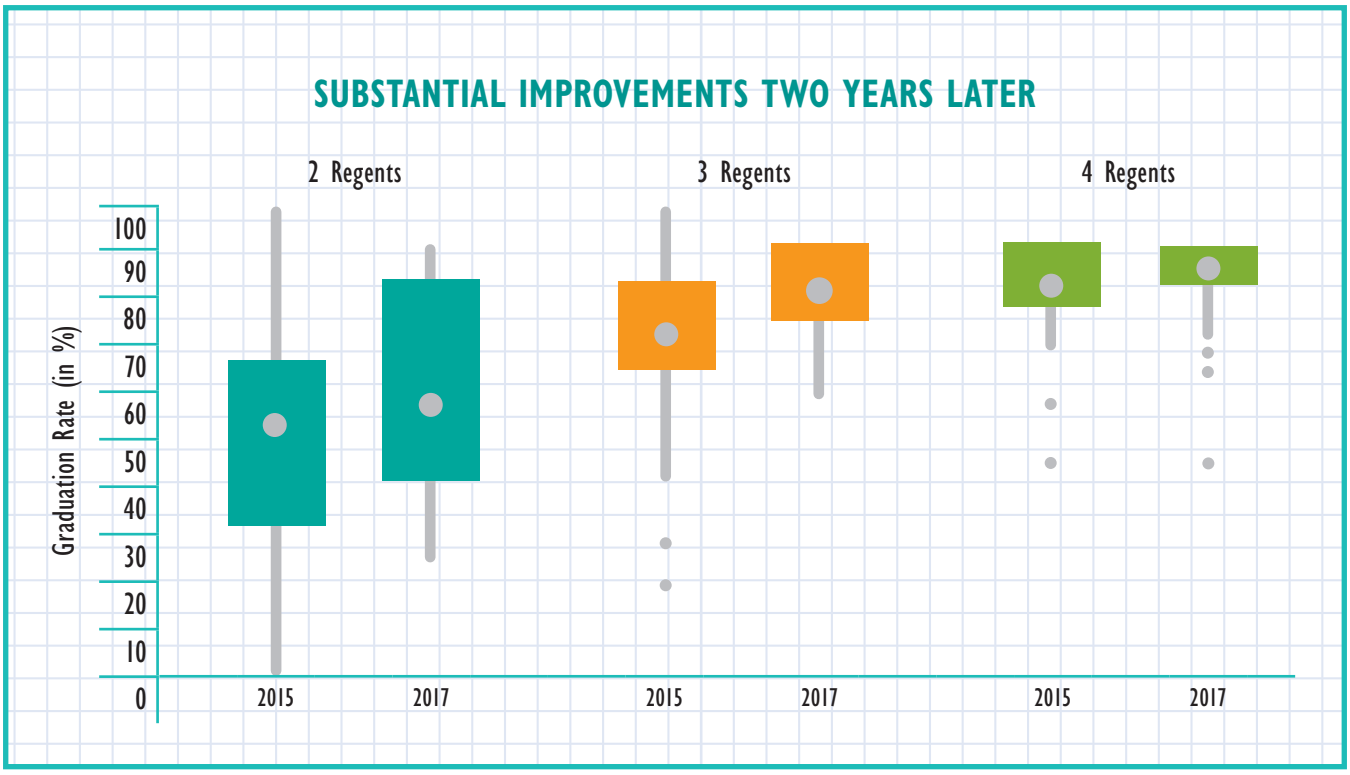
the results for students entering their senior year in 2015 having already successfully completed four Regents exams, which is a very high bar. Notice that, in most schools, virtually all students are graduating. But, in a quarter or so of the schools, a fair number of students, as much as 20 percent, are not.

And this variation in success rates among schools is even wider when we look at students who had completed two or three Regents. *(See the left-hand side of Figure 6.)*

Depending on what high school students attended, their likelihood of graduation varied enormously. In some schools, success rates for these students are 90 percent or higher; in other schools, however, they could be less than 30 percent. Wide disparities in educational outcomes were hiding in plain sight.

And now this is what their results looked like after two years of improvement efforts *(see Figure 7)*. The bottom tail of these distributions has been truncated. Schools where the most negative results had been occurring have improved and the overall graduation rates (those big gray dots) are rising. In any effort to attack disparities in educational outcomes, this is precisely what we want to see.

Figure 7:
Substantial improvements two years later
Courtesy of New Visions for Public Schools



So taken together, both High Tech High and New Visions for Public Schools invented new forms of evidence that provided the right information to the right people and at the right time to catalyze very different kinds of improvement conversations with individual students, within schools, and across their respective networks.

Quality Lesson 3: As Problems Increase in their Complexity, Engage and Activate the Diversity of Expertise Assembled in Improvement Networks

Today we hold higher aspirations for student learning than ever before. A few years ago, these aspirations were couched in the term of more ambitious intellectual work. Then it became the fewer, higher standards of the Common Core. More recently, we hear calls for deeper learning, and before long, even newer expressions of rising aspirations will likely come forward.

Again the realist voice I hear: These developments are truly laudable, but to reliably achieve such quality learning outcomes as we continue to reach higher, well, this is a very tough problem to solve. It has a close cousin in the many efforts, spanning most of the 20th century, to advance progressive educational reforms in the United States. When well-orchestrated, such instruction was truly a delight to behold. But when weakly done, as was unfortunately too often the case, the exact opposite was true.

One needs access to a broad array of expertise—strong educational practitioners, relevant applied educational researchers, instructional designers, and others working in an integrated fashion.

So this is the context for efforts of groups like the Better Math Teaching Network at American Institutes for Research (AIR). They are working in a space where educators aspire to have all students engage in complex mathematical thinking, solve challenging problems that involve real-world applications, make connections among mathematical concepts and practices, and be able to respectfully analyze and critique the reasoning of others.

To make headway here, one needs access to a broad array of expertise—strong educational practitioners, relevant applied educational researchers, instructional designers, and others working in an integrated fashion. And so AIR's Better Math Teaching Network was formed.

In bringing the network together, leaders at AIR knew that they needed to develop an explicit shared working theory of improvement. In the past, teachers might have received professional development on some new standards, but then they were largely left on their own to figure out how to make this come alive in their classrooms. History teaches us that following this path is a recipe for unacceptably wide variability in student outcomes.

So instead, working together, network participants formulated a concise and concrete operational definition for what they were about: to increase the number of students who solve, connect, and justify their mathematics work with depth.

Then they had to develop what would count as evidence to inform their improvement efforts and how they would judge such evidence to discern whether they were actually moving in the right direction.

At the end of their first full year, the signs were encouraging. Students were now engaging in deeper mathematics learning at much higher rates, and network faculty were actively confronting together the formidable challenges of advancing deeper learning in their classrooms. Although still very early on in their efforts, these are the kinds of developments that we would expect to see in the birth and growth of a vital instructional improvement network.

Now let's look at a more mature example—the work of the National Writing Project (NWP).

When the Common Core Standards were being developed, NWP quickly saw that the standards' new emphasis on writing as argument would create new challenges for teachers and their schools.

In response, they convened a subset of 12 of their writing project sites in 10 states to prototype, test, and refine a set of pedagogical practices and instructional resources to improve the teaching of writing as argument.

Central in their working theory of improvement was how students draw on, evaluate, and use evidence in making written arguments. Similar to the Better Math Teaching Network, we see in NWP's effort this same clarity and specificity about the particular problem to be solved.

To engage this improvement aim, they also knew that they needed to develop a practical formative tool for looking at student work, a tool that could catalyze and inform productive discussions among faculty about their teaching and scaffold individual conferences with students about their writing.

In essence, they had to invent a new improvement measure. So NWP teachers, working with network staff, initiated a design-based process of prototyping and iterative testing of what eventually emerged as the Using Sources Tool.

The final tool looks simple. It is captured on one sheet of paper and consists of just seven items. In contrast, the process of creating a practical improvement measure of this sort was quite complex.

The instrument has to maintain fidelity with what expert teachers see and do. It has to align with best research evidence. It has to be practical, able to work within the highly constrained time demands of day-to-day classroom practice. And it also has to have good statistical properties—have validity for this particular set of uses. So again, a broad array of expertise was needed to make something like this happen.

More generally, running throughout NWP's efforts are multiple and varied applications of disciplined inquiry. In addition to the iterative tests of change to develop the Using Sources Tool, they also engaged in a form of lesson study around improving instructional practices, and they launched a randomized field trial that generated strong evidence of program effects.

And they did all of this in just two years. Now this work is spreading quickly through almost 100 NWP sites and reaching over 20,000 students nationwide.

So this Spotlight affords us with a strong example of what a mature improvement organization like NWP can accomplish. Again, in just two years, they:

1) focused in on the critical improvement problem;
2) moved quickly to assemble a working improvement network with all of the practical, research, and content expertise needed to attack this problem;
3) rapidly developed a working theory of improvement and launched tests of change; and
4) achieved measurable improvements against an ambitious new set of instructional standards.

This is a remarkable demonstration at accelerating learning to improve—or "getting better at getting better." I would submit that few, if any, individual districts or new educational organizations could have accomplished anything like this on the time frame and scale that NWP achieved.

So to various funders and policy leaders out in the audience, there are also important lessons here about the value of an educational improvement infrastructure of the type exemplified by NWP. The kind of capacity evident in NWP takes a long time to build and requires ongoing stewardship to maintain. But it is also an essential resource, especially in this era of rising aspirations for teaching and learning all across our nation's schools. If we are to have any chance of moving from the rhetoric of rising aspirations

to a reality of accomplishment, we need more investments in an improvement infrastructure of this sort.

Quality Lesson 4: It Is a Paradigm Shift: a Cultural Transformation in the Ways Schools Work

Of the seven spotlights, the School District of Menomonee Falls (SDMF), just outside Milwaukee, has been at this among the longest—some seven years now. The work of Pat Greco and her team afford valuable insights into what quality improvement looks like when fully embedded in the core fabric of an educational organization.

SDMF has brought the improvement science principles, and related tools and practices, into the core work of everyone in the district from the school board to the central office to the classroom. If you have a chance to visit with them, you will learn that this is just the way they do their work now.

Their list of improvements is far too long to call out. It runs the whole gamut from improving teaching and learning; to more advanced course taking in high school and reducing suspension rates in middle school; and to operations savings on utility costs, health insurance, and workers' compensation.

It is a remarkable story of a visionary superintendent working with a supportive school board and staying the course on transformational change over time. Working together, they made deep investments in building professional capabilities and institutional supports for quality improvement. They have nurtured agency with all educators in the district, with all administrative and operational support staff, and with their students too.

A foundational idea in improvement science is that those who are engaged in the work are central to its improvement. In this short video montage from Menomonee Falls, pay attention to who is doing the improvement learning. Everyone, from the students all the way up through school board members, is now actively involved.[1]

These developments in Menomonee Falls exemplify five general features that characterize continuous quality improvement organizations across sectors and industries:

1) They invest in developing all of their people.
2) They recognize improvement as a regular part of the work that people do and appropriate resources for it to happen.

1 See timecode 42:56 in *Continuous Improvement at Menomonee Falls* at https://www.carnegiefoundation.org/resources/videos/anthony-bryk-2018-summit-keynote-video.

3) They prepare their principals and teacher leaders as coaches and facilitators of improvement.
4) Everyone in the organization is an improver now, and everyone in any form of leadership role is a coach of improvement. And this, in turn, leads to a fifth big observation:
5) Those demonstrating expertise in the work of improvement become prime candidates for promotion up through the system over time.

This is the paradigm shift. This is how continuously improving organizations become good at what they do, and continue to get better year after year after year.

CONCLUDING COMMENTS

So stepping back a bit, while these seven improvement stories are powerful, they are far from unique at this Summit. Over the next two days, you will have an opportunity to explore improvement work in more than 50 breakout sessions and to talk more informally around posters, during break times, over receptions, and at meals. You will have a chance to meet and talk with many others who share your passion and are on learning journeys like your own.

In my opening remarks at past Summits, I have offered an alternative vision of practitioners and researchers working together in new ways, where there is a genuine fusion of their different domains of expertise—all aiming to truly make a difference for all students.

With Summit V, we have moved beyond vision. Improvement work is not only "in the air," it is "on the ground." So, as in *Field of Dreams,* in a sense we did build the playing field, but more importantly, you have come to play. You have assembled here as a community of improvers. The opportunities to learn from each other and to grow together are what is truly special.

We can now look at quality improvement efforts in action, study them, and go talk to the people who are doing them. We can see the improvement principles alive in their work. Now each improvement problem is different and the contexts of improvement are varied. So how best to proceed will inevitably have some local particularities. But there are also commonalities that bind all of us together.

Advancing better, more equitable educational outcomes—that is our shared aim. The improvement principles, they are our guidance system. And learning together, this is the work of a profession getting better at what it does.

Anthony S. Bryk delivering his keynote address, April 2018

All of us at Carnegie are delighted that you have chosen to be with us for the next few days. It is an honor to be colleagues with you in this ever-enlarging improvement community. Let's go play ball! Please enjoy your Summit.

THANK YOU

Tony Bryk

Carnegie Foundation
for the Advancement of Teaching
51 Vista Lane
Stanford, California 94305
650-566-5100
www.carnegiefoundation.org

The Carnegie Foundation for the Advancement of Teaching aims to build a field around the use of improvement science and networked improvement communities to solve longstanding inequities in educational outcomes.

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