

# Leadership that Supports Continuous Improvement: The Case of Ayer Elementary

Kate Kennedy  
H. Alix Gallagher



October 2019

# Leadership that Supports Continuous Improvement: The Case of Ayer Elementary

Kate Kennedy, University of Southern California  
H. Alix Gallagher, Policy Analysis for California Education



## Acknowledgements

In October 2015, Policy Analysis for California Education (PACE) launched a research partnership with the *CORE Districts* in California. The CORE-PACE Research Partnership is focused on producing research that informs continuous improvement in the CORE districts and policy and practice in California and beyond.

We would like to thank the many individuals who contributed to this report. We are grateful to the generous sponsors of this research at the Bill and Melinda Gates Foundation. We want to thank the staff at the *CORE Districts*, who helped us shape relevant research questions, graciously gave us their time, provided access to CORE Improvement Community events and internal documents, and shared their evolving thinking with our research team. We also thank the Fresno Unified School District for their support throughout this project, especially the many administrators and teacher leaders who participated in the research activities and shared their valuable time and insights with us. We would like to acknowledge the contributions of the broader PACE team, Shawn Bernardo, Benjamin Cottingham, Angela Gong, Heather Hough, Vicki Park, and Joe Witte for their support of and participation in the work of the CORE-PACE Research Partnership. Finally, we would like to thank two anonymous reviewers for their helpful comments and suggestions. The opinions expressed are those of the authors and do not represent views of the funding organizations.

To cite this publication: Kennedy, K. and Gallagher, H.A. (2019). *Leadership that supports continuous improvement: The case of Ayer Elementary*. Palo Alto: Policy Analysis for California Education.

---

## Executive Summary

In the past few years, California's education policies have focused on continuous improvement as a general approach to improving student outcomes. While approaches for doing continuous improvement are sometimes well-specified (e.g., in specific methodologies such as improvement science, Baldrige, Deliverology, etc.), much less is known about the organizational conditions that enable continuous improvement to flourish. This case study of leadership at Ayer Elementary School in the Fresno Unified School District is part of a broader set of reports on findings from the CORE-PACE Research Partnership's developmental evaluation in 2018-19. The research focused on elevating lessons about how educators learn continuous improvement and the organizational conditions that support continuous improvement work in schools and districts.

While Ayer was selected as an exemplar of leadership practice, in many ways it is similar to other elementary schools in the district. It serves an ethnically diverse, high-poverty student population and has faced challenges hiring fully-credentialed, experienced teachers to fill job openings. Nonetheless, student performance has been rising slowly but steadily over the past few years. This case examines the leadership practices at Ayer Elementary, where teachers are conducting systematic inquiries into fundamental aspects of their practice as part of continuous improvement projects. After examining the leaders' practices, we believe they are both effective at supporting continuous improvement and largely replicable in other schools and districts.

We first examine the external supports the school's improvement teams received from their district and the *CORE Districts*. Then we delve more deeply into the leadership practices, which teachers credit with supporting them to undertake challenging work using a continuous improvement approach. We derived three main lessons from our interviews, observations, and analyses of artifacts:

1. A range of district resources and supports from the *CORE Districts* provided a foundation for Ayer's continuous improvement work.
2. The principal's commitment to improvement projects and the leadership team's approach created a culture that nurtured continuous improvement.
3. The leadership and improvement culture at Ayer led to a strong sense of teacher agency, which in turn created space and motivation for teachers to focus on how they could address systemic inequities.

The report offers insights into how leaders can foster a culture of risk-taking, teacher agency, and collective efficacy. It also raises questions about how to support more principals in learning the leadership skills necessary to support the desired spread of continuous improvement in California.

---

## Introduction

The *CORE Districts (CORE)* is a nonprofit organization created in 2010, which works to foster collaboration between eight of California's largest districts.<sup>1,2</sup> In 2018-19, *CORE* provided a range of supports to participating districts including programs to develop continuous improvement capability for district and school leaders tailored to their various roles (e.g., senior district leaders, improvement team facilitators) and coaching for school-based improvement facilitators and Local Improvement Teams (LIT). This case examines continuous improvement work within one of the *CORE* districts, Fresno Unified School District (FUSD), from the perspective of Ayer Elementary School, starting with the range of external supports it received and drilling down from school leaders to teachers to examine the nature of the improvement work.

FUSD is the fourth largest school district in California, serving almost 74,000 students, approximately 88 percent of whom are eligible for free- and reduced-price meals. The student body is diverse: 69 percent of students are Latinx, followed by 11 percent Asian, 9 percent White, 8 percent African American, and 3 percent in other categories. While Ayer was selected as an exemplar of leadership practice, in many ways it is similar to other elementary schools in the district. Like FUSD as a whole, Ayer serves a diverse, predominantly low-income, student population. California Department of Education data show that in 2018-19, Ayer served approximately 650 students in grades PreK-6, of whom 59 percent were Latinx, 21 percent Asian, 13 percent African American, 4 percent White, and 2 percent other. Approximately 91 percent of the students are eligible for free- or reduced-price lunch.<sup>3</sup> In an era of high principal turnover, Ayer's principal has been there for over a decade, but the school is not immune from the broader teacher workforce challenges facing FUSD. In 2018-19, five of the six 5th and 6th grade teachers were in their first or second year of teaching and were teaching on a Provisional Internship credential (i.e., they began teaching while in the process of completing a teacher preparation program).

---

<sup>1</sup> The larger, nonprofit organization is identified as the *CORE Districts*. When discussing one of more of the individual partner districts within the organization, they are referred to as *CORE* districts.

<sup>2</sup> This case is part of a series of four documents describing lessons learned about continuous improvement from the *CORE District's* leadership of the *CORE* Improvement Community during 2018-19. For more information about the history of the *CORE Districts*, background on continuous improvement, and the *CORE* improvement community: <https://edpolicyinca.org/publications/learning-and-practicing-continuous-improvement-lessons-core-districts>

<sup>3</sup> The original source for all of these data is the California Department of Education. Free- and reduced-price lunch data cited above were pulled from: <http://www.ed-data.org/district/Fresno/Fresno-Unified>, where the most recent year of data available is 2017-18. Demographic data come from: <https://dq.cde.ca.gov/dataquest/dqcensus/enrethlevels.aspx?agglevel=District&year=2018-19&cds=1062166> and are from 2018-19.

In 2018-19, 31 percent of students met or exceeded standards on the California Assessment of Student Performance and Progress (CAASPP) in English language arts, and 31 percent met or exceeded standards in mathematics. These results represent steady improvement since 2014-15, when 18 percent and 14 percent of students met or exceeded standards in English language arts and mathematics, respectively.<sup>4</sup>

Ayer's connection to improvement science began a few years ago when FUSD's Equity and Access team used improvement science, a specific method of continuous improvement, to expand the number of eligible students applying to a range of University of California and California State University campuses by over 50 percent (Aguilar, Nayfack, and Bush-Mecenas, 2017). In 2016-17, then-superintendent Mike Hansen and then-Associate Superintendent for Equity and Access Jorge Aguilar invited several principals, including Ayer's principal, to participate in an improvement learning community facilitated by Aguilar, and to attend the Carnegie Summit on Improvement in Education. In parallel, FUSD's district team participated actively in the CORE Improvement Community (CIC), analyzing the root causes of their mathematics achievement gap in 2016-17, and launching LITs at four schools with the aim of improving mathematics outcomes for African American and Latinx students in grades 4-8 in 2017-18. In 2018-19, three schools continued in the CIC, and Ayer extended the improvement focus in mathematics to additional grades, forming a second LIT focused on fifth and sixth grade. Additionally, following a year of an exceptionally large number of suspensions, the principal launched a social-emotional learning (SEL) LIT focused on reducing the number of African American students suspended. Throughout this time, FUSD continued to participate in CORE's capability-building programs. CORE also hosted four regional convenings in FUSD in 2018-19, bringing together LITs across the district to share their experiences and consolidate what they learned from their improvement efforts.

---

<sup>4</sup> These student achievement data were pulled from the CORE Districts Data Dashboard, which provides a range of performance and other data to member districts at: <https://dashboard.coredistricts.org/dashboard>. It is not available to the broader public, though these facts could be confirmed on websites of the California Department of Education.

## Methods

This case is based on data collected during the 2018-19 school year including observations of a learning consolidation event at Ayer and a *CORE*-led regional convening with LITs from across the district, analysis of artifacts (e.g., posters recording team meetings), and a total of 31 interviews with 25 individuals: FUSD district leaders (n=3), principals and assistant principals (n=4), instructional coaches (n=4), teachers (n=11), and *CORE* staff directly involved in work with FUSD (n=3). Interviews were recorded and transcribed. At the events we observed, we took observation notes and collected agendas, event materials, and artifacts of work (e.g., poster paper where participants recorded discussions).

Analysis included several rounds of content coding of interview transcripts, observation notes, and artifacts, interspersed with regular discussions among members of the research team to surface initial hypotheses and explore potential patterns in the data within and across districts. We broadly focused our initial coding on how educators described their experiences with *CORE*, their CI approach, and their perceptions of the organizational conditions that enabled or constrained their work. We drew upon the Coherence Framework developed by the Public Education Leadership Project (n.d.) and Fullan and Quinn's (2015) Coherence Framework to create a hybrid heuristic tool to examine existing district and school conditions and their inter-relationships. Next, we used Grunow and Park's (2019) five features of CI to examine the range of approaches districts were taking to work towards their overall goals. We coded all data with these categories and then developed case-ordered descriptive matrices comparing the districts (Miles, Huberman, and Saldana, 2014). From these, we developed major themes about the continuous improvement approaches across the sites.

By sharing lessons learned from Ayer, we hope to illustrate the combination of internal organizational conditions and external supports that have led to a growing staff engagement in continuous improvement.

## Lessons Learned

Analyses of our data from 2018-19, yielded three main lessons about how external supports and Ayer's leadership created a professional community that used continuous improvement approaches to improve student outcomes

### **Lesson 1: A range of district resources and supports from CORE provided a foundation for Ayer's continuous improvement work.**

As described above, teachers and leaders at Ayer have been on an "improvement journey" for the past few years, deepening knowledge and expanding their practice of improvement science. In this section, we describe the district resources and structures that have been key in facilitating Ayer's use of improvement science to improve teacher practice in 2018-19.

**Support of district coaches with content expertise.** FUSD's district-level staffing includes district teams with content expertise relevant to Ayer's improvement aims—including Curriculum, Instruction and Professional Learning, Equity and Access, Climate and Culture, and African American Academic Acceleration—all of which provided resources and support to Ayer's improvement efforts. For example, on the day we observed the learning consolidation event for the SEL LIT (when LIT members spent the day using targeted activities to reflect on what they learned and discuss implications for practice), district staff with expertise in restorative justice and climate and culture were also present.

The mathematics LITs also received support approximately once a month from district-based mathematics instructional coaches. While the actual work of improvement science was facilitated by school leaders and owned and carried out by the teachers, the expertise and knowledge of the district's instructional coaches was crucial. Each LIT was supported by a math coach from the district office who worked with their specific grade-level teachers coaching them during their "Accountable Community Meetings" (i.e. common planning) time. A CORE coach who worked closely with the LITs at Ayer told us that:

*Those [instructional] coaches in all of the team meetings have brought the strategies to help the teachers. What the teachers needed to learn next, those coaches brought... and let those teachers test out those strategies and grow and adapt those strategies to be able to answer their learning questions. They have been invaluable.*

At the year-end regional convening that CORE hosted to bring LITs from across FUSD together to share their learning, members of every LIT in the district commented on how the instructional coaches furthered their work by supporting them in identifying

promising change ideas to test, finding the necessary instructional resources, and even conducting model lessons in their classrooms so that teachers could see demonstrations of the new approaches they were trying.

**Leveraging existing meeting structures for improvement work.** One of the challenges PACE found facing improvement teams across the CORE districts was the struggle to find common time for teachers to meet. At Ayer, teachers took advantage of regular time built into the teacher contract for “Accountable Community Meetings,” which required teacher collaboration in grade-level teams at every school site in the district. Interviews suggested that, in some schools, the meetings were very compliance-oriented. One teacher told us that in her former school, “Everything was always very rote,” but at Ayer the time was seen as “super important” with improvement science providing a way to structure the meetings for authentic collaborative work. Additionally, teachers felt more comfortable having courageous conversations within an improvement science framework because they could focus on data and improving the system. One teacher spoke to this process:

*My team has always worked well together. But, you know, sometimes being able to sit down and have those harder conversations about what’s going wrong or what’s going right or whatever, it’s kind of an uncomfortable position in some ways... I think this [improvement science work] has caused us to kind of open up and have deeper discussions [about how our unconscious biases may affect our teaching]... because... we have very specific things that we can talk about. It really directs our conversations better.*

The fact that teacher collaboration time was built into the schedule and everyone was used to attending meant that LITs could consistently meet without requiring the additional stipends for time outside of the contract day (which drives up the costs for LITs in other districts). As needed, the district and school also provided funding for substitutes to give teachers release time and paid for additional time outside of teachers’ contract day so teachers could learn and work in their LITs.

**District improvement facilitator.** Ayer also benefited from a much less typical district resource, a one-year special assignment of a district-level research analyst and improvement facilitator to be the social-emotional learning LIT lead at Ayer. The SEL LIT lead had a couple of decades of research and evaluation experience and participated in improvement science trainings at the Carnegie Foundation for the Advancement of Teaching. The SEL LIT lead worked broadly towards the school’s improvement goals. She explained her role: “This year, I’m placed here just to facilitate the different initiatives at Ayer, though I’m also taking this opportunity to study how a school’s system, at large, functions towards some of these outcomes.” Her role included facilitating the SEL LIT by

leading team meetings, accessing existing research, and supporting data collection and analysis. One teacher described her contribution by explaining that the SEL LIT lead was “the driving force to kind of put [the SEL team] all together.” By having her office and job placement located within a school—as opposed to the central office—the SEL LIT lead was able to provide hands-on, ongoing support to school-level educators. She also closely collaborated with the principal, whom she had known professionally from many years in the district.

**Coaching from CORE.** In addition to supports from the district, *CORE* provided coaching for the principal and SEL LIT lead. A *CORE* coach also came to Ayer on multiple occasions to provide just-in-time coaching as problems of practice emerged in their work. One of the *CORE* coaches explained:

*I've been working pretty closely with [the school staff at Ayer]. They're just really excited about it... [The] principal was able to get subs for the day so that we could spend six hours getting really detailed about our plans, our data, and our goals, and make sure that everyone was on board.*

As this quote shows, supports from *CORE* complemented the supports from FUSD to ensure that Ayer's LITs had time for improvement work and access to a range of expertise to support their efforts. In describing the supports Ayer received, the SEL LIT lead affirmed how valuable she found *CORE*'s coaches: “[H]aving access to [the *CORE* coaches]... just to say, ‘Hey, how do I do this? What do you think my next step should be?...’ [has] been very helpful.” However, support from the district and *CORE* is only a small part of the story. In what follows, we outline the important role that school leadership played in Ayer's improvement work.

## **Lesson 2: The principal's commitment to improvement projects and the leadership team's approach created a culture that nurtured continuous improvement.**

During 2018-19, Ayer was led by the principal and assistant principal, with the SEL LIT lead joining in leading continuous improvement work. This three-person leadership team created a culture of improvement and established a safe climate for teachers to work collaboratively to identify problems of practice, identify potential changes that might address the problems, test the changes in their classrooms, and revise their approach if they were not effective. Teachers assumed the risks inherent in revealing their biggest challenges and testing new ideas because of the ways the leaders created a sense of psychological safety.

**The Project Sponsor.** One role that *CORE* identifies for leaders in improvement organizations is that of a project sponsor. The sponsor is charged with championing the work—finding resources, removing barriers, and maintaining the work as an organizational priority. Typically, however, project sponsors are not involved in the day-to-day of LIT

meetings. At Ayer, the leadership team both sponsored and led the LITs. In general, this could be a tricky combination, because truly doing continuous improvement requires people to publicly discuss problems in their school systems. For instructional improvement projects, teachers' classroom practices are the focus of analysis and teachers could be justifiably reluctant to discuss areas where they need to grow their practice in front of their supervisors. In this case, however, the leaders purposely adopted leadership stances that made teachers feel safe (as described below). LITs were able to benefit from clear evidence of their leaders' commitment to the improvement projects and the school leaders protected teachers' shared meeting times from competing demands (which posed to a challenge to LITs in many other schools). Finally, as active LIT members, the leaders knew what resources the LITs needed and negotiated with the district and *CORE* to help LITs access external supports when extant school-based resources were insufficient.

**Psychological safety, vulnerability and openness.** Vulnerability and openness are essential to a continuous improvement culture (Hilton & Anderson, 2018; Hough, et al., 2017; Garvin, Edmonson, and Gino, 2008). The Ayer teachers we interviewed consistently provided examples of the psychological safety present in the culture, which started with the principal's personal willingness to be publicly vulnerable. The principal relayed the story of how she slowly and deliberately began to shift the school's culture after her supervisor asked her to explain why, in spite of how hard her staff was working, student outcomes were stagnant:

*My veteran teachers will say [our culture shifted] because I first went to them...I was vulnerable enough to say to them that when my boss asked me why don't I get better results, I had to look her in the eye and say, "I don't know." I said it in front of my whole staff. It wasn't about finger pointing at them. It was saying, "I get paid to know. I get paid to get results.... And I don't know." My veteran people that have been with me for a long time will say that's the moment because I was willing to be vulnerable and just to say I don't have the answer. Then they will say that they were willing to [be vulnerable because I was vulnerable]. I was very intentional, and still am, about staying on that message.*

The principal drew strong inspiration from Brene Brown's book, *Daring Greatly*. As the SEL LIT lead described, the book played a critical role in developing the principal's vision for how she wanted to lead:

*[Daring Greatly is the inspiration for how] she has set the tone for the school. Oftentimes where teachers say, "I do not understand this..." she says, "Okay, let's stop, let's take time out." She thanks them..., [S]o she's created the psychological safety for this work to take hold. [A]nd for teachers to take ownership of this work, they absolutely have to have psychological safety.*

This message—that it’s acceptable to make mistakes, to not have all the answers, and to be vulnerable—was repeated by nearly every person at this school we interviewed. Another teacher emphasized how important this sense of psychological safety is to her work:

*So, continuous support from her and just knowing that it’s okay if we make a mistake because she’s okay with it. She knows that we’re learning. She’s shared with us, “I’ve made mistakes, but we need to fix these mistakes...” We feel safe to be vulnerable with each other. I think that speaks volumes for leadership.*

As these comments indicate, the principal models vulnerability and has created a continuous improvement culture where failures are seen as opportunities for learning. As a result, she and other school leaders (who similarly model humility, openness, and vulnerability) can facilitate LITs without shutting down teachers’ willingness to go public with their instructional practice in all its strengths and imperfections.

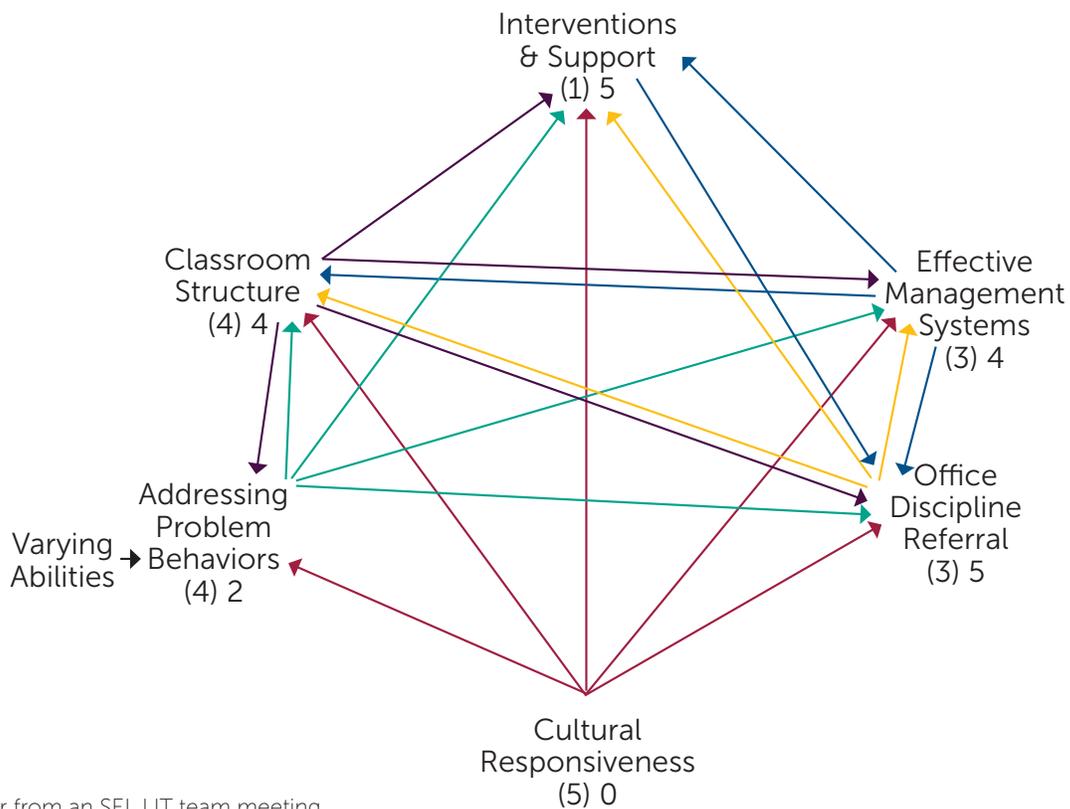
**Building teacher ownership of the improvement process.** Building on the culture of improvement that they created, Ayer’s leaders introduced and practiced improvement science in ways that built teacher ownership of continuous improvement work in: how they introduced improvement science, the way they used tools to support shared decision-making, how leaders facilitated LITs, and by including all teachers in the school in making decisions based on the results of their improvement science work.

The principal fostered teacher ownership even in the way she first introduced improvement science to the staff at Ayer. One teacher who had taught with the principal for 12 years explained how the principal first introduced the idea of improvement science by describing their stagnant performance and saying, “[We] need to do it differently. This just isn’t working.” And then the principal went on to say, “I heard about this [improvement science]. What do you think?” This teacher recalled being part of a schoolwide decision to explore improvement science as an approach to improving student outcomes.

Including teachers in the decision to pursue improvement science set a strong foundation for teacher ownership of the work. Ayer’s LITs began their continuous improvement work by conducting a root cause analysis (where they worked together to identify the factors they believed were causing disparities in mathematics outcomes, especially for African American students). After examining data, the staff collectively decided that the way they were teaching mathematics was not reaching enough of their students. As one teacher explained, after conducting the analysis they collectively decided, “Okay, we need something to address how we’re teaching this information because what we’ve been doing hasn’t worked.”

Each LIT launched by studying Ayer’s system and identifying “drivers” (i.e., levers in the system that are currently producing the performance gap and that, if improved, would result in different outcomes). The SEL LIT, which launched in 2018-19, conducted its root cause analysis (i.e., an approach to figuring out central problems in a system that are leading to undesirable outcomes), and identified key drivers in their system. The SEL LIT lead then led the LIT in using an improvement science tool our research team has rarely seen used by improvement teams in California, called an interrelationship diagram (see Figure 1).

**Figure 1:** SEL LIT interrelationship diagram



Poster from an SEL LIT team meeting.

Teachers used this tool by listing all of the main “drivers” of outcomes that they had identified through their root cause analysis. They then discussed the relationships among the drivers (e.g., in Figure 1, teachers identified that cultural responsiveness influenced the way they addressed problem behaviors, their classroom structures, the interventions and supports students received, how effective their management systems are and their use of Office Discipline Referrals, the formal process where students were sent out of class to the office due to student misbehavior). The numbers under each driver represent the number of other drivers a given driver influenced and, in parentheses, the number of other drivers that influence the given driver (e.g., cultural responsiveness affects five other drivers

and no listed drivers affect cultural responsiveness). Using this tool, the LIT decided that cultural responsiveness was the highest priority root cause, because it affected all other causes. That is, if they addressed cultural responsiveness then they would be likely to see improvements in all of the other drivers they identified as well. As a result, the teachers decided their next step should be digging into the research on cultural responsiveness to identify promising change ideas.

Teachers also reported that the way their school leaders facilitated their LITs created distributed leadership rather than a more traditional top-down administrator-teacher relationship. One teacher mentioned, “This last two years has been really feeling like [the principal]’s just there coaching us and helping us along.” Another teacher elaborated on this:

*It’s we who are driving the ship, so to speak, and then we get [our principal’s] confirmation. There’s been times where we’ve told [our principal] what we were thinking, and she’s like, “Well, have you thought about this?”... because she just has more baseline knowledge than we do.*

The ways facilitators—the school leadership team—built teacher buy-in paid dividends in how teachers felt about their efforts. Teachers described working harder than ever through the improvement science process, but also feeling joy and fulfillment, which stands in stark contrast to many initiatives administrators ask teachers to undertake. One teacher, who had been working at the school for decades, talked about how different this process felt to her: “I’ve always been a hard worker, but I’ve worked way harder this last year-and-a-half than I think I ever have, but I’ve loved every minute of it. So, it’s a big difference.” Ownership over the improvement journey, as opposed to following for the sake of compliance, was mentioned by several interviewees. Another teacher told us:

*I’m so glad we’re in charge of our work and that we own this, and we want it, and we’re really working at our collaboration to do well together. Sometimes, with school initiatives that are just handed down, you’re kind of like, “oh okay. I guess I have to do this”, versus, “I really want to make the change and I want to really invest in that.”*

Teachers also provided examples showing how their ownership was operationalized. For example, in addition to testing an initial change idea, the SEL LIT recommended changes to the referral form teachers used to refer students to the office. This created a new schoolwide disciplinary process, based on one teacher’s idea that was tested in the SEL LIT. As a teacher described, “We had to vote on it. Everybody voted on it. Everybody agreed on it.” At Ayer, teachers consistently pointed to examples showing that the leadership team shared decision-making power with them around key decisions, which built their sense of agency.

Across the schools the PACE research team visited, the strategies used by Ayer’s leadership team stood out as exemplary for building teacher ownership and shared internal accountability. Teachers’ collective ownership also enabled the improvement work to deeply examine challenging issues.

**Lesson 3: The leadership and improvement culture at Ayer led to a strong sense of teacher agency, which in turn created space and motivation for teachers to focus on how they could address systemic inequities.**

The overall approach to continuous improvement work at Ayer was for the district and school to provide supporting resources, for leaders to model vulnerability and create a psychologically safe environment for risk-taking, and for leaders to build teacher buy-in so that teachers could own the continuous improvement work. Data for both of the projects that Ayer’s LITs focused on—student mathematics achievement and student suspensions—showed that outcomes prior to the continuous improvement work differed for students based on their race. Variation in outcomes based on race is almost ubiquitous in American schools and there are many explanations available to explain this variation. What is unusual is how teachers at Ayer exhibited collective efficacy for improving the outcomes of groups of students who had been least well-served by the school.

Previous sections have described how the SEL LIT used the interrelationship diagram to select “Cultural Responsiveness” as the highest-priority driver to focus on in their work. Notably absent from their interrelationship diagram were factors outside the teachers’ control (e.g., student poverty, students’ home lives). One teacher who participated in both a mathematics and the SEL LIT explained the broader mindset that supported teachers to focus on improving the factors under their control rather than feeling powerless in the face of broader societal inequities that do affect students:

*Having the support from our administration saying... if something is not working in the classroom, abandon that idea and change it...it’s not the children.... [It] helped me to boost my own teacher efficacy in saying, ‘okay there’s something I could do more about this...’ We are shifting from it’s on the student to it’s on us. Not in a negative way, but saying, ‘how can I be more conscientious of what my student is feeling or going through?’ Especially knowing what type of demographic we’re serving, I think that that’s been really important in this improvement science and has been really good because it shifts the mindset.... [I]t’s really shifting to say okay, what can we as adults do to help a student be more successful?*

This teacher describes a strong sense of agency, but also recognized that the LIT was not initially ready for those conversations. Instead, the LIT built-up to having difficult conversations about equity through a combination of professional learning sessions and practice using the tools of improvement science:

*Last year, when we were doing the work around mathematics... we started to have kind of some conversations about race and identity...I will tell you the first meeting it seemed like everybody was kind of like, 'Oh I don't want to talk about race.' It's kind of a thing that you don't really want to talk about. Once we got past that and everybody started having these conversations, everybody started talking. The work was really good. I think it made everybody a lot more comfortable to say, 'I don't know how to connect with this student...' Since the time I've been here at Ayer... the staff is very good with each other. It just bound us together, even more to say, 'okay, there are some things around race that are uncomfortable, but we have to learn how to deal with them.'*

As this teacher's comments show, improvement work at Ayer directly tackled deeply personal issues for teachers, suggesting that unlike most schools that report engaging in continuous improvement, work at Ayer has reached well beyond what Grunow et al. (2018) describe as "superficial" layers.

## Conclusion

As this case illustrates, Ayer had access to a range of resources (e.g., improvement expertise, content expertise, time for teacher teams to meet) necessary for continuous improvement. Additionally, school leaders prioritized continuous improvement as a unifying approach to address performance gaps, created a climate where educators could feel safe being vulnerable, and actively engaged teachers in key decision-making. The result was teachers who enjoyed working hard together and collaboratively digging into tough issues.

This type of work takes time to show results in student outcomes, but teachers feel confident that they are seeing early indicators of success. They report that the changes they have tested in mathematics have built student confidence and conceptual understanding. Teachers on the SEL LIT, and some outside the LIT who have also tested the LIT's initial change ideas, report that they are gaining deeper understandings of their students, which helps them respond more effectively to student behaviors. In 2018-19, student suspensions declined and student performance on CAASPP continued to improve. Overall, this school's approach appears promising, raising questions for how other districts and schools could support similarly deep uptake of continuous improvement:

- How could districts train and allocate central office staff to provide school-based teams access to necessary expertise in content and continuous improvement?

- What supports do district and school leaders need to become comfortable modeling vulnerability and supporting others to make their practice and knowledge gaps public?

Answers to the first question might require either additional resources or reallocation of existing resources. Addressing the latter might require an initial resource investment in professional learning opportunities for leaders, but ultimately is more about changing mindsets so leaders build collective efficacy and internal accountability in their organizations as part of a culture of continuous improvement.

---

## References

- Aguilar, J., Nayfack, M., & Bush-Mecenas, S. (2017). *Exploring Improvement Science in Education: Promoting College Access in Fresno Unified School District*. Palo Alto: Policy Analysis for California Education
- Garvin, D. A., Edmondson, A. C., & Gino, F. (2008). *Is yours a learning organization?* *Harvard Business Review*, 86(3), 109.
- Grunow, A., and Park, S. (2019, April). Towards a common vision of continuous improvement. [Presentation]. *Paper presented at the annual meeting of the American Educational Research Association*. Toronto, Canada.
- Harvard University, Public Education Leadership Project (n.d.). *Coherence Framework*. Retrieved from <https://pelp.fas.harvard.edu/book/coherence-framework>
- Hilton, K., Anderson, A. (2018). *IHI psychology of change framework to advance and sustain improvement*. Boston, Massachusetts: Institute for Healthcare Improvement.
- Hough, H., Willis, J., Grunow, A., Krausen, K., Kwon, S., Mulfinger, L. S., & Park, S. (2017). *Continuous improvement in practice*. Palo Alto: Policy Analysis for California Education.
- Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative data analysis: A methods sourcebook*. Thousand Oaks, CA: Sage Publications, Inc.

---

## Researcher Biographies

**Kate Kennedy** is a Ph.D. student in Urban Education Policy at the University of Southern California, a research associate with the Center on Education Policy, Equity and Governance at the Rossier School of Education, and a research assistant for Policy Analysis for California Education (PACE). Kate's research focuses on politics, leadership, and equity in K-12 education policy. Areas of specialty include teacher work conditions, school choice, and affective policies (e.g. social-emotional learning and discipline reform).

**H. Alix Gallagher** is the Director of Research-Practice Partnerships at Policy Analysis for California Education (PACE) at Stanford University, where she leads the developmental evaluation for the CORE-PACE Research Partnership and other projects. Before joining PACE, Alix was an Associate Director at the Center for Education Policy at SRI International. There she led large-scale randomized controlled trials and policy studies and was fortunate to be part of two successful long-term research-practice partnerships. Alix's expertise is in improving instructional quality and student outcomes. She holds a Ph.D. in Educational Administration from the University of Wisconsin-Madison and a B.A. in History and Growth and Structure of Cities from Bryn Mawr College. Alix began her career in education as an elementary school teacher.

## About

Policy Analysis for California Education (PACE) is an independent, non-partisan research center led by faculty directors at Stanford University, the University of Southern California, the University of California Davis, the University of California Los Angeles, and the University of California Berkeley. PACE seeks to define and sustain a long-term strategy for comprehensive policy reform and continuous improvement in performance at all levels of California's education system, from early childhood to postsecondary education and training. PACE bridges the gap between research and policy, working with scholars from California's leading universities and with state and local policymakers to increase the impact of academic research on educational policy in California.

Founded in 1983, PACE

- Publishes policy briefs, research reports, and working papers that address key policy issues in California's education system.
- Convenes seminars and briefings that make current research accessible to policy audiences throughout California.
- Provides expert testimony on educational issues to legislative committees and other policy audiences.
- Works with local school districts and professional associations on projects aimed at supporting policy innovation, data use, and rigorous evaluation.



**CORE-PACE RESEARCH PARTNERSHIP**

Stanford Graduate School of Education  
520 Galvez Mall, CERAS 401  
Stanford, CA 94305-3001  
Phone: (650) 724-2832  
Fax: (650) 723-9931

[edpolicyinca.org](http://edpolicyinca.org)