This knowledge brief is part of a continuing series designed to inform California education leaders about new research findings on key state policy topics. This brief summarizes recent findings on effective professional learning.

Guidelines for teaching California’s students have changed dramatically in recent years, as state leaders have adopted new academic standards, curriculum frameworks, and instructional materials lists in an attempt to better prepare students for college and career (see Figure 1).

However, adopting high-quality standards and curriculum materials does not guarantee effective instruction in classrooms. Teachers need sustained, job-embedded, content-rich professional learning in order to build their capacity to make the instructional shifts required to engage learners around today’s academic expectations and curricula (Hill, 2020). Moving forward, this brief refers to such professional learning simply as curriculum-focused professional learning. As one California district leader recently explained, the state’s previous academic expectations “did not call for huge shifts in instructional practice in the way that the Common Core standards are calling for, yet we haven’t made that same kind of investment in professional development that we did back in the early 2000s” (Finkelstein & Moffitt, 2018, p. 5).

**Figure 1. Timeline of California's adoption of academic standards, curriculum frameworks, and instructional materials lists since 2010**

- **MATH | August 2010** Standards adopted
- **ELA | August 2010** Standards adopted
- **ELD | November 2012** Standards adopted
- **MATH | November 2013** Curriculum framework adopted
- **MATH | January 2014** Instructional materials list adopted
- **ELA/ELD | July 2014** Curriculum framework adopted
- **SCIENCE | November 2016** Curriculum framework adopted
- **HISTORY | July 2016** Curriculum framework adopted
- **SCIENCE | November 2018** Instructional materials list adopted
- **MATH Planned for Summer 2021** New curriculum framework to be adopted
- **MATH** Planned for Early 2022 Instructional materials list to be adopted
Curriculum often resides at the center of a local instructional plan, but professional learning should be designed to consistently reinforce that plan (Tepe & Mooney, 2018). Yet traditional models of professional learning have too often focused on one-time external trainings or workshops centered on broadly applicable aspects of pedagogy. That approach to professional learning is less likely to provide relevant classroom takeaways for teachers and potentially conflicts with other local instructional principles (Darling-Hammond et al., 2017; Hill, 2020).

Some states, like Louisiana, have supported local implementation of curriculum-focused professional learning by providing clear guidance about what effective, curriculum-aligned, job-embedded professional learning opportunities look like. Louisiana does so by offering free digital professional learning modules online and establishing the infrastructure for in-person collaborative learning among teachers (Opfer et al., 2016; Tepe & Mooney, 2018). Given California’s size and its decentralized funding and governance structures, the role for supporting professional learning rests more with county offices of education, regional alliances, and local school districts than with the state — with coherence between standards, materials, and instruction “best and most durably built” at the district level (Finkelstein & Moffitt, 2018, p. 8).

Drawing on existing research, survey results, and key California support resources, this knowledge brief describes the components of effective curriculum-focused professional learning for teachers and provides information that California county and district leaders can use to shape their own local approaches and systems.

**Characteristics of effective local professional learning systems**

A review of recent, related research suggests that local professional learning systems that build capacity for content-rich instructional improvement across schools and classrooms have several important features.

*Teachers engage in active learning with colleagues at their site, with specific goals and regular practice and reflection.* Adults benefit when their professional learning is self-directed, problem-focused, and set in their workplace (Knowles et al., 2005). The most effective learning among teachers happens when they work together at their sites (with a coach and/or with their colleagues) on an ongoing basis, with the freedom to share ideas and collaborate in their learning, and avoid any generic external training that is not contextually relevant to the school or district (Darling-Hammond et al., 2017; Hill, 2020). In this sort of job-embedded, collaborative professional learning, teachers design and try out instructional practices and use authentic artifacts and interactive activities, in much the same learning format they are designing for their students. Teachers can reflect and receive input on their efforts and make adjustments as needed (Darling-Hammond et al., 2017). In a professional learning community format, teachers’ collaborative learning can often productively center on lesson study or unit study with peers (WestEd, 2019). By working with an instructional coach — a learning strategy that is supported by a strong evidence base — teachers can engage in intensive one-on-one collaboration, featuring regular classroom check-ins, continuous feedback, and reflective daily or weekly practice cycles that all revolve around each teacher’s individual needs and goals (Kraft et al., 2018).

*Teachers do deep dives into content and curriculum.* Working alongside the coaches and colleagues with whom they already (ideally) collaborate, teachers can improve their practice by diving deeply into the curriculum they employ (Lynch et al., 2019; WestEd, 2019). Intentionally focusing collaborative professional learning on discipline-specific curriculum and pedagogies in areas like mathematics, science, and literacy helps teachers learn effectively in their specific classroom context (Darling-Hammond et al., 2017). By engaging in practice that is as close to classroom experience as possible, teachers deepen their understanding.
of the curriculum, including how students might process it, which mistakes students and teachers might make, and how teachers can shift and adapt to make corrections (Finkelstein et al., 2018). This type of job-embedded, classroom-centric approach helps teachers “learn exact content coupled with exact instructional methods” (Hill, 2020, p. 1). And across multiple research studies examining instructional coaching, this type of subject-specific coaching has been found to be more effective than subject-general coaching (Kraft et al., 2018).

“Many teachers today report that after receiving new materials, they attend only brief workshops that cover the basic structure of the materials, how to adapt lessons for English-language learners, how to access online components, and so forth. For many schools, intertwining instructional methods and curriculum will be new territory.”

— Harvard Graduate School of Education Professor Heather Hill

A core group of teachers pilots new strategies, then makes adjustments. Change can be difficult, especially when it represents a dramatic shift from current practice. If a district is seeking a wholesale redesign of its professional learning infrastructure in response to a newly adopted curriculum, for example, then it makes sense to progress purposefully and to roll out steps strategically. This might involve tackling manageable elements of change one at a time — starting by piloting new practices aligned with the new curriculum within a small core group of volunteering teachers. This group can try out the new routines themselves and observe one another doing so. Documenting this type of pilot process, sharing its successes and challenges, and having the core group of teachers help district leaders introduce the piloted practices with other teachers can lead to more effective scale-up moving forward. These steps can also offer an opportunity to create common understandings around evidence-based decision-making (WestEd, 2019). Districts might want the core teachers and teacher leaders that are involved with such a pilot (i.e., the “early adopters”) to be the same individuals who had been involved in recent local curriculum adoption decisions made by the district, as they are already positioned to help build understanding of instructional practices that support the new curriculum and lead professional learning (WestEd, 2019).

Leaders coordinate support for the work and model the learning themselves. The success of site-based professional learning can depend largely on the school’s culture around feedback and collective responsibility for instruction (Hill, 2020). School leaders play a critical role in fostering this culture, as they can establish clear and consistent expectations and a spirit of collaboration and can set a course toward continuous instructional improvement. Logistically, principals can also connect instructional resources within and across school sites with the partners involved by organizing teacher peer groups, helping to deploy coaches, and securing time and resources from other district support staff (Finkelstein et al., 2018).

District leaders can help site leaders execute these responsibilities. Districts in California’s Math in Common network have recently seen benefits from developing professional learning plans at both the district and the site levels, carefully tracking their progress using observation tools (preceded by widespread local training on the tools) and making necessary adjustments relatively quickly (WestEd, 2019). Also, school and district leaders can parallel their teachers’ learning by engaging in change-focused professional learning communities with their peers, sharing ideas, and engaging in discourse with peer leaders within the district and/or in similar districts nearby (WestEd, 2019).
What California teachers are saying about their professional learning

Overall, most California teachers (78 percent) who responded to a spring 2019 survey agreed that their professional learning activities helped them use their instructional materials effectively to meet student needs. However, they reported that their professional learning lacked some of the specific features described earlier in the “Characteristics of Effective Local Professional Learning Systems” section. For example, compared with teachers responding to the same survey in other states, California teachers reported less frequently receiving instructional coaching that was focused on their adopted curriculum materials, and lower proportions of California teachers agreed that they got consistent feedback on their effectiveness in using their curriculum. These discrepancies with other states were particularly evident among teachers of math and science. Meanwhile, only 35 percent of California teachers agreed in surveys that in their school, teachers frequently observe other teachers and are comfortable being observed.

Other survey results, however, suggested that the professional learning support that California teachers did receive had a positive impact. Compared with teachers in other states, a higher proportion of California teachers indicated that their materials-focused collaborative learning (e.g., in professional learning communities) improved their use of their materials to a great extent. And when asked about their site leadership, more than 80 percent of California teachers reported that their principals have been effective in supporting high-quality curriculum and professional learning.

Taken together, these survey results suggest that the content-focused observation and feedback and collaborative learning with peers and coaches that are described in this brief represent a promising (and perhaps underutilized) instructional improvement strategy for many California school districts moving forward.

Existing supports for curriculum-focused local professional learning systems in California

There are a range of promising supports across California that can help district and county administrators devise effective local professional learning strategies and systems. Public, private, and non-profit organizations have come together to offer instructional materials, training resources, and professional learning tools that are in line with many of the features of effective professional learning described earlier in this report. The following content-sharing, educator-driven professional learning networks have sprung up or expanded their reach in recent years, offering some innovative approaches to delivering educators what they need in order to enhance their understanding of standards and engage deeply with their curriculum.

» The California Subject Matter Project is a network of nine discipline area-based statewide projects that support ongoing high-quality professional development for teachers, including workshops, leadership institutes, and in-service programs focused on improving instructional practice. Administered by the University of California Office of the President, the network’s activities and programs are designed by
university faculty, teacher leaders, and teacher practitioners.

» The California Curriculum Collaborative is a partnership between EdReports.org and Pivot Learning designed to help California counties, districts, schools, and teachers evaluate instructional materials to identify high-quality curricula that will meet the needs of their diverse learners. The collaborative offers vetted tools to help districts make decisions about the adoption and rollout of instructional materials.

» Collaboration in Common is an online professional learning community launched as a partnership between the California Department of Education (CDE) and the Californians Dedicated to Education Foundation. It offers a resource exchange platform where educators can post and search resources while collaborating with others in the teaching community. With a user interface resembling Facebook and Pinterest, the system uses artificial intelligence software to connect users to educator teams, vetted resources, and directories of materials linked to appropriate grade levels and subject areas.

» The Math in Common initiative was launched by the S. D. Bechtel Jr. Foundation in 2013 and provided funding to 10 diverse California school districts (Dinuba, Elk Grove, Garden Grove, Long Beach, Oakland, Oceanside, Sacramento City, San Francisco, Sanger, and Santa Ana) to share strategies for implementing the Common Core State Standards for Mathematics in grades K–8, discuss successes and challenges, and collaboratively work toward improving implementation of the standards. The initiative yielded useful knowledge resources for other districts as well.

» The Instructional Leadership Corps is a collaboration between the California Teachers Association, the Stanford Center for Opportunity Policy in Education, and the National Board Resource Center at Stanford. It offers educator-driven professional learning to a network of teachers, site leaders, administrators, and higher education professionals to deepen their understanding of instructional standards, advance collaboration, and share training resources.

» The California Collaborative for Educational Excellence (CCEE) works with the CDE and California’s county offices of education to implement California’s statewide system of support for schools and districts. The CCEE acts as a facilitator to help county offices of education and districts access available supports. Its website houses free customizable toolkits designed to help build local system capacity and is rooted in a continuous improvement approach. The organization also offers direct technical assistance and disseminates best-practice information statewide.

» The Curriculum and Instruction Steering Committee of the California County Superintendents Educational Services Association works with districts, the CDE, and other partners to identify statewide curriculum and staff development needs; provides a communication and implementation network for curriculum and professional development activities; and assists the CDE in adopting and implementing instructional materials and developing publications such as curriculum frameworks.

» The California School Leadership Academy will be reestablished in 2020 for the first time since 2003, with funding both from the state and from federal Title IIA monies. With oversight from the state, providers like institutions of higher education, county offices of education, and nonprofits will use grant monies to provide free professional learning for local education leaders, starting in summer 2020. Structured around one central provider and seven regional academies, the provider(s) will train principals, mentors/coaches, teacher leaders, and district leaders.
References


