

California Standards Implementation: What Educators Are Saying

by Reino Makkonen and Robert Sheffield, WestEd

Background

Since 2015, with sponsorship from the California State Board of Education, WestEd has reported on surveys and focus groups with California educators about current implementation of the state's English language arts (ELA) and mathematics standards and associated supports.¹ The effort is part of the Bill and Melinda Gates Foundation's larger Measure to Learn and Improve (MLI) initiative examining the implementation of new college- and career-ready standards across 12 states.² In this knowledge brief, we summarize findings from the RAND Corporation's most recent American Teacher Panel (ATP) surveys administered to California teachers,³ alongside lessons learned from related ongoing research and technical assistance initiatives (see Box 1 on page 2).

"We're trying to change instructional strategy, and classrooms in general. That is a huge undertaking. But the vision is having an interactive classroom. That's the vision."

— California District Leader

¹ WestEd's previous (March 2016) presentation to the California State Board of Education on statewide standards implementation is accessible online at <https://www.wested.org/resources/wested-presentation-to-the-california-state-board-of-education-march-2016/>.

² In addition to California, the other MLI states include Arkansas, Colorado, Florida, Kentucky, Massachusetts, Mississippi, New York, North Carolina, Oklahoma, Tennessee, and West Virginia.

³ The RAND ATP surveys were originally launched in 2014, and are administered statewide several times a year. To create the ATP, RAND first sampled 2,300 public schools, stratifying for balance by grade span (primary, middle, high, and combined), school size, poverty status, population density, and geographic region. Two regular full-time teachers were then selected from each sampled school to join the ATP, and these teachers were stratified by experience level and subject area. Teachers who change schools remain on the panel, and new members are added periodically so the panel remains representative of teachers over time. A total of 798 California teachers were included in the ATP sample for the May 2017 survey administration, and 479 responded, for a response rate of 60 percent. Weighting, which accounts for differential sampling and non-response, was used to produce results representative of the full state sample (yielding an approximate margin of error of ± 4.5 percent). The response rate from the October 2016 ATP survey administration in California was 54 percent.

Funding for this brief was provided by the Bill and Melinda Gates Foundation.

Key Findings

California teachers report engaging in more site-based professional learning with their fellow teachers, with increasing proportions meeting with or working with peers and observing another teacher's classroom.

When asked about their professional learning experiences, approximately 2–3 percent more California ATP teachers reported meeting with other teachers

to discuss state standards and instruction, working with other teachers to develop materials or activities, and reviewing student assessment data with other teachers to make instructional decisions during the 2016/17 school year than during 2015/16. Results indicated that peer observation increased more substantially, with 54 percent of California ATP teachers reporting that they observed another teacher's classroom to get ideas for their own instruction or to offer feedback in 2016/17, up from 45 percent in 2015/16.

Box 1. Related WestEd Projects

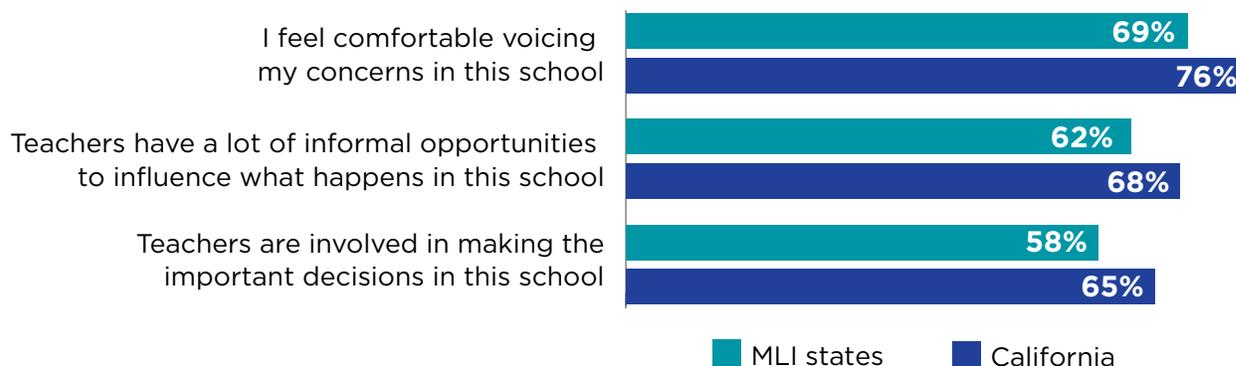
Standards implementation in California is dynamic and multi-dimensional, and WestEd has multiple projects that touch upon its different aspects. These include, for example:

- » Research by the Center for the Future of Teaching and Learning, which interviewed 45 California district leaders in fall 2016, including superintendents, directors of curriculum and instruction, and ELA and math coordinators to understand districts' progress in building professional learning capacity and determining needs. The Center also conducted fall 2016 focus groups with 81 teachers (from 43 districts) and with 27 principals and 32 instructional coaches across California to understand educators' perceptions of the value and effectiveness of standards-driven instructional leadership, professional learning, and instructional materials. Information from this research is available online at <https://thecenter.wested.org/insights/2016-ca-standards-implementation/>.
- » WestEd's evaluation of Math in Common®, a five-year initiative funded by the S.D. Bechtel, Jr. Foundation that supports a formal network of 10 California school districts (Dinuba, Elk Grove, Garden Grove, Long Beach, Oakland, Oceanside, Sacramento City, San Francisco, Sanger, and Santa Ana) as they implement state academic standards in math across grades K–8. WestEd's research evaluating the Math in Common initiative

is available online at <https://www.wested.org/project/math-in-common-evaluation/>.

- » The Leading with Learning project, which supports teachers, instructional coaches, principals and other site leadership, and district leaders in preschool, elementary school, and middle school to improve teaching and learning around California's English Language Arts/English Language Development (ELA/ELD) Framework in the Fresno, Sacramento City, Pajaro Valley, and Oakland school districts. More information about Leading with Learning is available online at <https://leadingwithlearning.wested.org/>.
- » The California Comprehensive Center is working closely with the California Department of Education and the State Board of Education to support the state's implementation of the California Academic Standards and Curriculum Frameworks, including sharing resources and best practices. More information is available online at <http://cacompcenter.org/college-and-career-readiness/>.
- » The Center on Standards and Assessment Implementation (CSAI), which provides state-level research support, technical assistance, tools, and other resources to support the implementation of college and career readiness standards and assessments. Information about individual states is available online from CSAI at <https://www.csai-online.org/sos>.

Figure 1. Teachers' perceived general influence at their school site (percent agree)



More so than in other MLI states, California teachers report influencing key decisions at their schools.

Administered across states, the ATP surveys can identify differences between the perceptions among California teachers and those among their peers elsewhere. While such disparities were limited, there was a difference in the degree of influence that teachers reported having at their school sites, with California teachers consistently reporting more local influence than teachers in the other MLI states. On separate questions, approximately 2 out of 3 California ATP teachers agreed that at their school they feel comfortable voicing their concerns, that they have a lot of informal opportunities to influence what happens, and that they are involved in making important decisions (figure 1).

There were three specific policy areas where more than half of responding California ATP teachers indicated that they have *some influence* or a *great deal of influence* at their schools — determining books and other instructional materials used in classrooms, setting standards for student behavior, and determining how students' progress is measured.⁴

⁴ In the May 2017 ATP survey, the degree of reported influence over school policy differed between California elementary and secondary teachers in two areas — higher proportions of secondary than elementary teachers reported *some influence* or a *great deal of influence* on measuring student progress (60% secondary versus 52% elementary, $p < .05$) and determining classroom materials (69% versus 62%, $p < .05$).

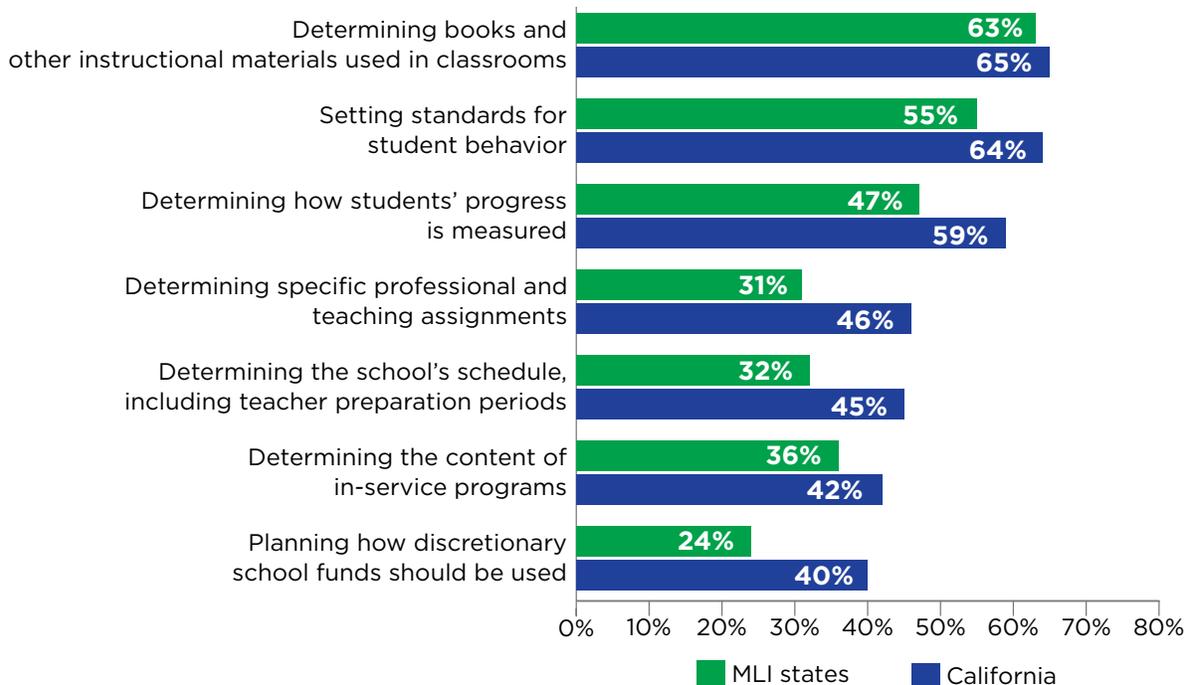
As shown in figure 2, lower proportions of teachers in the other MLI states reported influencing school policy in these areas at their schools.

Teacher leaders in California support collaboration and influence instructional practice.

On both of the two most recent ATP surveys (reporting on the 2015/16 and 2016/17 school years), 65 percent of California teachers agreed that their school “cultivates a cadre of teacher leaders” (defined as “teachers who influence instructional practice at your school”) to make progress in implementing state standards. And approximately two out of three California ATP teachers agreed that the teacher leaders at their schools provided effective support for peer collaborations — 68 percent agreed that teacher leaders provided adequate expertise and effective guidance during peer collaborations, and 64 percent agreed that teacher leaders provided materials, tools, or equipment that helped them work together more effectively. Both of these figures were higher than the parallel figures in the full multi-state ATP sample (in which 63 percent and 56 percent of teachers agreed with these statements, respectively).

In related work, WestEd has studied teacher leadership approaches in several California districts. First, interviews were conducted with central office leaders from five California districts that saw improved math performance on the California Assessment of Student Performance and Progress (CAASPP)

Figure 2. Teachers' perceived influence over specific school policies (percent reporting some influence or a great deal of influence on the policy)



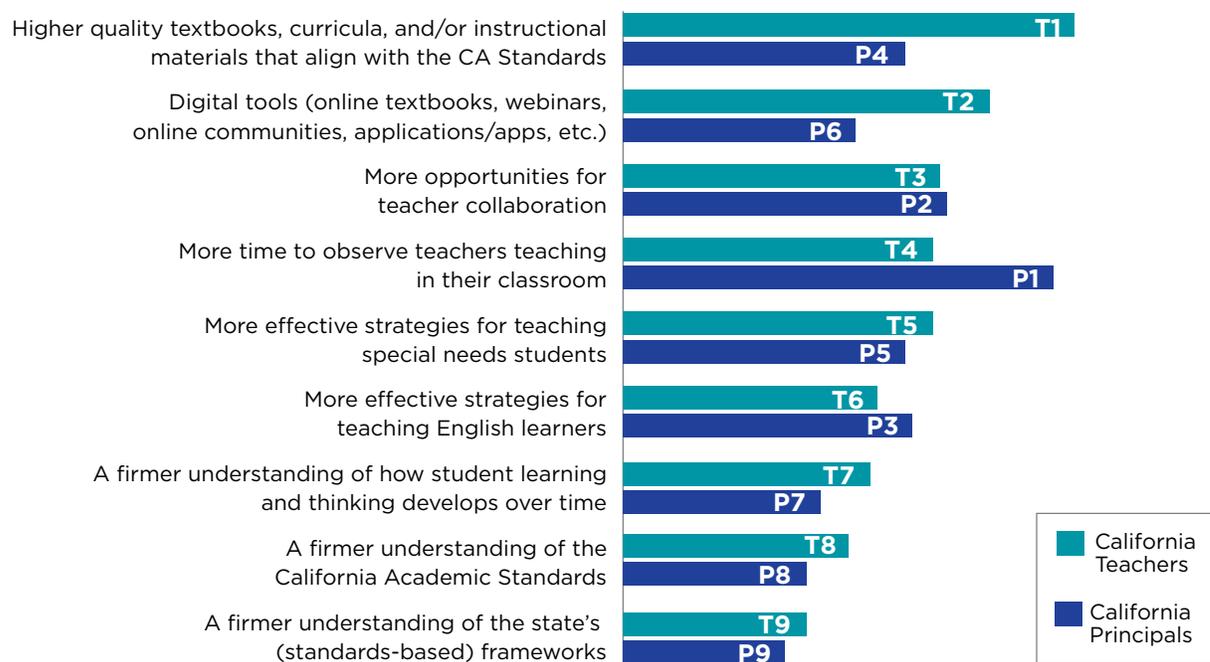
in 2017.⁵ These leaders emphasized the positive impact of having teachers on special assignment (TOSAs) or instructional coaches develop and share demonstration lessons and/or lead school-based professional learning on local curriculum and assessment issues (Sigman, 2017). And in the Garden Grove Unified School District, where many schools significantly outperformed demographically similar schools across California on the 2016 CAASPP math tests, one district leader referred to their nearly 40 TOSAs as the district's "secret sauce"

⁵ Partnering with the California Department of Education, WestEd interviewed leaders in five districts (Carlsbad Unified, Fallbrook Union Elementary, Galt Joint Union Elementary, Ontario-Montclair, and Whittier City Schools) where the percentage of students who met or exceeded state performance standards on the 2017 CAASPP math assessment increased in at least three grades and by at least 6 percentage points in grade 5. The interviews explored the improvement efforts that the district leader(s) believed had the greatest impact in contributing to their increases in CAASPP scores (Sigman, 2017).

(Perry et al., 2017: p. 11). Garden Grove employs both site-based and subject-area (cross-site) TOSAs, who are guided by district-level directors of instruction to build common understandings across schools and departments. In addition to providing instructional support to teachers at school sites, Garden Grove's TOSAs meet together at the district's central office on Mondays and Fridays to develop their own learning and to share ideas (ibid.).

To effectively implement the California Academic Standards, teachers say they need higher-quality instructional materials aligned with the standards, digital tools, more opportunities for teacher collaboration, and more time to observe teachers teaching in the classroom. In the May 2017 ATP surveys, California teachers were asked to select the five things they need most to effectively advance implementation of the California Academic Standards at their school. The most popular response, reported by 64 percent of responding teachers, was higher-quality textbooks, curricula, and/or instructional

Figure 3. What California educators report needing to support effective implementation of state standards (May 2017 ranked needs among teachers [T] and principals [P])



materials aligned with state standards.⁶ The second highest reported need was for digital tools (online textbooks, webinars, online communities, applications/apps, etc.), cited by 52 percent of California ATP teachers. The third and fourth most commonly cited needs involved peer collaboration; to wit, 45 percent of teachers reported that they need more opportunities to collaborate with other teachers in order to effectively implement state standards at their school, while 44 percent sought more time to observe other teachers teaching (figure 3).⁷

⁶ Similar proportions of California's math and ELA teachers and elementary and secondary teachers indicated a need in this area on the May 2017 ATP survey. However, the reported need for better standards-aligned materials was approximately 12 percentage points higher among the responding pool of California's non-rural teachers than among responding rural teachers ($p < .05$).

⁷ The reported need for peer observation was approximately 14 percentage points higher among responding elementary teachers than among secondary teachers ($p < .05$).

These key needs were corroborated by California principals, who in a parallel May 2017 survey most commonly sought more time to observe teachers teaching (cited by 61 percent) and more opportunities for teacher collaboration (cited by 46 percent) as the top implementation needs at their sites; 40 percent of the surveyed principals selected higher-quality, standards-aligned materials as a key need, which was the fifth most commonly cited need among the responding principals. And as shown in figure 3, while digital tools were the second most cited standards implementation need among teachers, they were only the sixth most cited need among principals.⁸

⁸ We do not report more explicitly on the May 2017 survey results from California principals here due to a low response rate on that survey (only 386 of the 1,024 sampled principals [38%] responded). But across questions, principals generally espoused more positive perceptions of standards implementation and related supports than teachers.

The California district leaders interviewed by WestEd’s Center for the Future of Teaching and Learning in fall 2016 had a slightly different perspective on their local implementation needs than the teachers and principals surveyed by RAND in May 2017. When asked to name the key barriers standing in the way of standards implementation in their districts right now, the most common response from district leaders was supports for English learners (cited as a barrier by 48 percent of district leaders). Among the California teachers and principals surveyed by RAND in May 2017, more effective strategies for teaching English learners was the sixth and fourth most commonly referenced need (cited by 37 percent of teachers and by 41 percent of principals, respectively).

Despite being identified as important needs, evidence suggests that progress is underway in several of these areas.

Instructional materials. Sixty-four percent of responding California teachers agreed that their textbooks and other main curricular materials are aligned with the California Academic Standards on the May 2017 ATP surveys. Teachers expressed other positive opinions about their instructional materials as well. On separate survey questions, at least 3 out of 4 California teachers agreed that curriculum, instruction, and learning materials are well coordinated across the different grade levels at their school (75 percent agreed) and that there is consistency in curriculum, instruction, and learning materials among teachers in the same grade level at their school (77 percent agreed). These responses reflect an improvement over 2015/16; on the May 2016 ATP survey, only 49 percent of California teachers agreed that they had access to sufficient resources to successfully implement the current state standards, such as standards-aligned textbooks and instructional materials, and access to online resources.⁹ Recent research suggests that districts and teachers are adapting their approaches to select and use

⁹ This 49 percent level of agreement regarding implementation resources was lower than the parallel figure in the other MLI states (where 55 percent of teachers agreed).

instructional materials to address college- and career-ready standards (Box 2).

Improving supports for teachers. In separate questions on the May 2017 ATP surveys, approximately 2 out of 3 California teachers agreed that their training and professional development on the California Academic Standards has been of high quality (67 percent agreed) and that their school or district provides adequate professional learning opportunities to support their school’s implementation of state standards (66 percent). Results also reflected teacher appreciation for the resources being dedicated to standards implementation, with 73 percent of teachers agreeing that their school or district leaders provide them with “adequate resources” and 58 percent indicating that they’re provided “adequate time” to support implementation of the California Standards. This latter perception represents an improvement over 2015/16, when 51 percent of California ATP teachers reported having adequate time.

California teachers’ professional learning is increasingly delivered via peer collaboration. On the May 2017 ATP surveys, 82 percent of California teachers agreed that their school convenes grade-level teams, professional learning communities, or other teacher teams to support the implementation of state standards.¹⁰ WestEd’s recent research in Garden Grove Unified found that professional learning activities there are routinely attended by principals, TOSAs, and district administrators. Most of these activities emphasize planning for, implementing, and reflecting on classroom instructional strategies, with new teaching strategies pilot tested and shaped by teacher feedback (Perry et al., 2017).

More teachers collaborating to review and plan instruction. Teachers want time and space to work together and to practice improving instruction, and appreciate seeing examples of what excellent teaching of the standards looks like (Rentner et al., 2016). Such activities are reportedly occurring across

¹⁰ Some California districts have also engaged in external partnerships with universities to advance standards-driven instructional shifts in classrooms, with partners including the UC Irvine math project and open online courses from Stanford University.

Box 2. New Approaches to Instructional Materials

Teachers' access to, and use of, materials aligned with their states' recently adopted college- and career-ready standards has been a popular topic of study in recent months, both in California and across the U.S. On the May 2017 ATP surveys, 66 percent of California teachers agreed that teachers at their school coordinate curriculum across grade levels according to the California Standards, while 73 percent agreed that teachers in their school work together to develop or revise instructional units around the standards. Other recent WestEd projects have explored in depth how several high-performing California districts are approaching materials adoption and implementation. For example, in Garden Grove Unified, materials selection relies heavily on a formal teacher input process, with district-level directors of instruction organizing materials into units of study by trimester, with pacing guides and benchmark assessments, which are released at the beginning of each year and discussed in teacher teams at sites throughout the year (Perry et al., 2017). Similar types of efforts were also cited as impactful in WestEd's recent interviews with leaders from other improving California districts, who emphasized the importance of building core units of study to organize curricula around California's Curriculum Frameworks, aligning the local curriculum sequence with the implementation of the Smarter Balanced Interim Assessment Blocks, and providing release days for teachers to review and discuss the curriculum and assessment sequencing at their grade level (Sigman, 2017).

Recent evidence from the Math in Common districts indicates that teachers use supplemental materials in some to most of their lessons (Perry, Marple & Reade, 2017, p. iv).^{*} However, many districts, schools, and teachers do not have organized norms for selecting such materials. To learn

more about the criteria teachers consider when making materials decisions, WestEd recently conducted a series of focus groups with ELA and math teachers in Boston, Denver, New Orleans, Raleigh, Seattle, and Tampa. Teachers in these groups explained that they tend to rely on sources like Google, Pinterest, and Teachers Pay Teachers to supplement their local adopted curriculum or materials because they want more engaging materials that better serve the diverse learners in their classrooms, i.e., their lower and higher performers (Marple et al., 2017). These teachers typically lack any formally defined rubric or set of criteria for vetting materials; instead, tacit criteria emerge as they reviewed the materials and discussed them with their colleagues, either formally or informally. In addition to focusing on the materials' ability to engage their students and support differentiated instruction, the focus group teachers' other tacit criteria examined whether the materials efficiently addressed academic standards; offered an appropriate depth of knowledge, questions, and activities; were well written with no errors; and were easy for teachers, students, and parents to use (Bugler et al., 2017).

^{*} A recent national study by RAND found that secondary teachers were more likely than elementary teachers to report developing or selecting materials on their own for a range of purposes (Opfer, Kaufman, & Thompson, 2016). "Math teachers — particularly at the elementary level — appeared to rely more on district or state resources and guidance compared with ELA teachers," the authors noted (p. xv). "In contrast, ELA teachers more often named factors like quality of materials and students' needs as factors influencing their use of instructional materials."

Box 3. Standards Implementation in Rural California Districts

Standards implementation has differed in California's rural areas. In fall 2016 interviews, leaders in many of California's larger school districts reported adding instructional coaches and TOSAs to support standards implementation, but this strategy was not feasible for leaders in smaller rural areas, who reported having to rely on their existing teachers and principals. This is not necessarily a problem. Many of California's rural districts benefit from more stable, experienced leadership and teaching staffs (Timar & Carter, 2017), and many rely on their teachers to make key decisions at the school. In the May 2017 ATP surveys, 77 percent of rural California teachers reported that teachers in their school have some or a great deal of influence on determining the instructional materials used in classrooms, as compared to 63 percent of non-rural teachers ($p < .10$). Moreover, after several years of dedicated investment, today many rural California districts have established technologies for assessing students and for delivering professional learning to teachers (ibid.). In the May 2017 ATP surveys, approximately 11 percentage points more rural California teachers than non-rural teachers reported using online professional development resources offered by or through their district in 2016/17 ($p < .10$), and about 9 percentage points more rural teachers than non-rural teachers agreed that their training and professional development for the California Academic Standards has been of high quality ($p < .10$).

California. In May 2017, 60 percent of California ATP teachers indicated that they have sufficient opportunities to collaborate with other teachers, and 65 percent agreed that their school leaders provide opportunities for teachers to discuss understandings of the California Standards across grades and content areas. Other data suggest that

local supports for teacher collaboration is increasing as well. Following the 2015/16 school year, only 39 percent of California ATP teachers agreed that their school provided teachers with adequate time in the school day to collaborate with peers, and only 47 percent agreed that their school leaders ensured that teachers have adequate expertise and guidance for collaborations. After the 2016/17 school year, 50 percent and 58 percent of responding California ATP teachers agreed with these statements.

At the same time, research emphasizes that teacher collaborations need to be focused and inquiry-based. For example, more in-depth lesson study and collaborative analysis of student work can open teachers' eyes about the degree of instructional shifts required by college- and career-ready standards, and teachers are more likely to revise their practices when their collaborative work is "focused on designing, adapting, and improving specific instructional plans and students' work, rather than more superficial discussions of practice" (Stosich, 2016, p. 1725).

The California Standards are reportedly shaping instructional practice. When WestEd's Center for the Future of Teaching and Learning asked district leaders in fall 2016 about the ways in which they've instituted new local practices or changed existing approaches to support the implementation of the California Standards, 66 percent identified the development of new instructional strategies as their most significant local change. Meanwhile, evidence suggests that teachers appreciate their states' new college- and career-ready standards,¹¹ and are adjusting their instruction to advance the learning expectations in them. In the October 2016 ATP surveys, California teachers who reported that they taught ELA or math in 2015/16 were asked whether their emphasis on certain classroom practices had decreased, stayed the same, or increased since the implementation of the California Academic

¹¹ On a nationwide RAND-administered survey in February 2016, over 85 percent of math and ELA teachers reported that having state standards is good for classroom instruction; among teachers who did not support standards, a key reason was that they believed the standards contain an unmanageable number of topics (Kaufman et al., 2017).

Standards. In response, a majority of ELA teachers reported that, since the implementation of the California Standards, they have increased their classroom emphasis in four areas of instructional practice — having their students explain their reasoning or thinking in solving problems, construct viable arguments supported with evidence, analyze how two or more texts address similar themes, and use evidence from a text to make inferences or support conclusions.¹² These reported shifts in ELA emphasis were driven primarily by elementary teachers, with lower proportions of secondary teachers reporting shifts in their classroom emphasis. The only practice that a majority of responding secondary ELA teachers reported increasing their emphasis on since the implementation of the California Academic Standards was on having students construct viable arguments supported with evidence.

In math, a majority of California’s teachers indicated on the October 2016 ATP surveys that, since the implementation of the California Standards, they have increased their classroom emphasis in six areas of instructional practice — having their students explain their reasoning or methods for solving a problem, compare and contrast different methods for solving a problem, apply math to solve problems in real-world contexts, consider multiple representations in solving a problem, work in pairs or small groups on mathematics problems, and build on each other’s ideas during discussion.¹³

¹² In contrast, lower proportions of ELA teachers reported increasing their emphasis on having their students engage in independent reading, participate in whole-class discussions, practice test-taking strategies, maintain and reflect on a portfolio of their own work, and engage in learning activities outside of the classroom.

¹³ These types of instructional shifts in math are supported by the Common Core Standards for Mathematical Practice, which describe the varieties of expertise that math teachers at all levels should seek to develop in their students. In contrast, lower proportions of math teachers reported increasing their emphasis on having their students listen to the teacher explain, observe the teacher demonstrate, model a mathematics procedure, or solve a problem; practice test-taking strategies; practice mathematical computations; engage in math learning activities outside of the classroom; and maintain and reflect on a portfolio of their own work.

And as was the case in ELA, these reported shifts in instructional emphasis were driven primarily by elementary teachers, with lower proportions of secondary math teachers reporting shifts in their classroom emphasis. The only areas where a majority of responding secondary math teachers reported increasing their emphasis since the implementation of the California Standards was on having students explain their reasoning or methods for solving a problem and having their students apply math to solve problems in real-world contexts.

Further details about the standards-driven instructional shifts recently reported by California teachers are available online at <https://thecenter.wested.org/insights/2016-ca-standards-implementation/2016-ca-instructional-shifts/>.

Moving into 2018

The implementation of the California Academic Standards has taken place at the same time as concerted efforts to substantially modify the state’s funding model, shift toward local control, and implement new accountability and data reporting. With such significant changes underway on various fronts, systematic knowledge sharing about progress is vital. As the Measure to Learn and Improve project draws to a close in 2018, much of WestEd’s related work will be focused on facilitating connections for knowledge sharing between California schools, districts, and counties, as a way to document lessons learned about, for example, how to build site leaders’ capacity to create supportive conditions for teachers to work together and practice improving instruction. In a recent paper, Fullan and Rincon-Gallardo (2017, p. 20) emphasized the important knowledge sharing role that the state’s county offices of education can play in California moving forward — by fostering more systematic collaboration to “build a culture of co-learning” and to “promote a climate of candor, evidence, and urgency for action.” WestEd plans to organize an online working group of geographically diverse California county officials in 2018 to promote better local data tools, collection,

and analysis to track standards implementation and promote more data-driven decision making. Further, WestEd will seek to learn from the CDE, CCSESA, SBE Math and Science Communities of Practices and will share that learning with others throughout the state. WestEd will also continue to convene its California Standards Technical Assistance Network (CalSTAN) — comprised of 12 California nonprofits, higher education institutions, and county offices of education — to advance implementation of the state's ELA/ELD framework and professional learning standards, and will use its new implementation matrix to help focus collaborative conversations in California's schools and districts.

References

Bugler, D., Marple, S., Burr, E., Chen-Gaddini, M., & Finkelstein, N. (2017). *How teachers judge the quality of instructional materials*. San Francisco, CA: WestEd. Online at <https://www.wested.org/wp-content/uploads/2017/03/resource-selecting-instructional-materials-brief-1-quality.pdf>.

Fullan, M., & Rincón-Gallardo, S. (2017). *California's golden opportunity: Taking stock: Leadership from the middle*. Online at https://michaelfullan.ca/wp-content/uploads/2017/09/17_Californias-Golden-Opportunity-Taking-Stock-FinalAug31.pdf.

Kaufman, J. H., Lin Wang, E., Hamilton, L. S., Thompson, L. E., & Hunter, G. (2017). *U.S. teachers' support of their state standards and assessments: Findings from the American Teacher Panel*. Santa Monica, CA: RAND Corporation. Online at https://www.rand.org/pubs/research_reports/RR2136.html.

Marple, S., Bugler, D., Chen-Gaddini, M., Burr, E., & Finkelstein, N. (2017). *Why and how teachers choose to supplement adopted materials*. San Francisco, CA: WestEd. Online at <https://www.wested.org/wp-content/uploads/2017/03/resource-selecting-instructional-materials-brief-2-supplementation.pdf>.

Opfer, V. D., Kaufman, J. H., & Thompson, L. E. (2016). *Implementation of K–12 state standards for mathematics and English language arts and literacy: Findings from the American Teacher Panel*. Santa Monica, CA: RAND Corporation. Online at https://www.rand.org/pubs/research_reports/RR1529-1.html.

Perry, R., Marple, S., & Reade, F. (2017). *Instructional materials: Who makes the choice? Findings from the annual survey on implementing the Common Core State Standards in mathematics*. San Francisco, CA: WestEd. Online at <https://www.wested.org/wp-content/uploads/2017/09/resource-instructional-materials-who-makes-the-choice-MiC9.pdf>.

Perry, R., Reade, F., Heredia, A., & Finkelstein, N. (2017). *Three structures in the Garden Grove Unified School District that support implementation of the Common Core State Standards in mathematics*. San Francisco, CA: WestEd. Online at <https://www.wested.org/wp-content/uploads/2017/09/resource-garden-grove-ccss-math-mic8.pdf>.

Rentner, D. S., Kober, N., Frizzell, M., & Ferguson, M. (2016). *Listening to and learning from teachers: A summary of focus groups on the Common Core and assessments*. Washington, DC: Center on Education Policy. Online at <https://www.cep-dc.org/displayDocument.cfm?DocumentID=1461>.

Sigman, D. (2017). *Growing student performance: Stories from five districts with demonstrated improvement in mathematics on the California Assessment of Student Performance and Progress (CAASPP) in 2017*. San Francisco, CA: WestEd. Online at <https://ca02204858.schoolwires.net/cms/lib/CA02204858/Centricity/Domain/99/West%20Ed%20Article.pdf>.

Stosich, E. L. (2016). Joint inquiry: Teachers' collective learning about the Common Core in high-poverty urban schools. *American Educational Research Journal* 53(6), 1698–1731. Online at https://scholar.harvard.edu/files/elizabethstosich/files/stosich_2016_joint_inquiry-teachers_collective_learning_about_the_common_core_in_high-poverty_urban_schools.pdf.

©2017 WestEd. All rights reserved.

Suggested citation: Makkonen, R., & Sheffield, R. (2017). *California Standards Implementation: What Educators Are Saying*. San Francisco, CA: WestEd.



WestEd is a nonpartisan, nonprofit research, development, and service agency that works with education and other communities throughout the United States and abroad to promote excellence, achieve equity, and improve learning for children, youth, and adults. WestEd has more than a dozen offices nationwide, from Massachusetts, Vermont and Georgia, to Illinois, Arizona and California, with headquarters in San Francisco. For more information about WestEd, visit <http://www.WestEd.org>; call 415.565.3000 or, toll-free, (877) 4-WestEd; or write: WestEd / 730 Harrison Street / San Francisco, CA 94107-1242.