CALIFORNIA CURRICULUM COLLABORATIVE

AN OPENING FOR CHANGE

Learnings from a Cohort Model for Off-Cycle Math Curriculum Adoption

A CalCurriculum Report in Partnership with
Pivot Learning, EdReports, and The Decision Lab

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The California Curriculum Collaborative is a partnership between Edreports and Pivot Learning. CalCurriculum helps districts adopt and implement high-quality instructional materials by providing independent reviews, content specific resources, and adoption and implementation guidance tailored to the California context.

Overview

Only 33% of California's six million K–12 students meet or exceed math performance standards. For Black and Brown students, Multilingual Learners, and students with disabilities, the numbers are even more dire.[1]

Over the past five years, there has been considerable research indicating that teachers can use high-quality instructional materials to accelerate math achievement[2] and close achievement gaps.[3] Much of this research followed California's most recent math materials adoption in 2014.

Since 2014, school district leaders' understanding of the relative quality of instructional materials and the differentiating factors has grown considerably. In response, publishers developed new materials and updated existing curricula.

Unfortunately, many California school districts are still using outdated materials that they purchased shortly after 2014.[4] Because California does not plan to release the next formal math materials adoption list until 2024, some districts have been hesitant to select new mathematics materials before then, leaving schools with a high-quality materials gap in the near term.[5]

To address this problem, Pivot Learning and EdReports came together to launch the California Curriculum Collaborative, CalCurriculum, in 2017. CalCurriculum later partnered with the California Department of Education (CDE) and Dr. Stephanie Gregson, the then California chief deputy superintendent of Public Instruction, to figure out ways to support districts through the local process of adopting new materials.

In 2020–21, CalCurriculum and the CDE worked with 13 California districts and charter management organizations (CMOs) from across the state to establish a cohort learning model. While the CDE consulted on this work, the focus of the CalCurriculum learning model was focused on local adoption of instructional materials. The model focused on math curricula adoption best practices to equip districts to

> "The [cohort] process helped us to focus on what our priorities are. . . . We really want our teachers to be empowered and equipped to use the material. . . . Just having the cohort and being able to have these conversations was extremely beneficial. It also gave us some ideas, [on] how to better refine and do things."
>
> – participant from a Southern California school district

1. California Department of Education. (2021). English language arts/Literacy and mathematics: Test results at a glance. Retrieved from https://caaspp-elpac.cde.ca.gov/caaspp/
2. Boser, U., Chingos, M., & Straus, C. (2015). The hidden value of curriculum reform: Do states and districts receive the most bang for their curriculum buck? Center for American Progress. Retrieved from https://cdn.americanprogress.org/wp-content/uploads/2015/10/06111518/CurriculumMatters-report.pdf
3. EdReports. (n.d.). *Why materials matter.* Retrieved from https://www.edreports.org/impact/why-materials-matter#s11
4. Polikoff, M. S., Campbell, S. E., Rabosky, S., Koedel, C., Le, Q. T., Hardaway, T., & Gasparian, H. (2020). The formalized processes districts use to evaluate mathematics textbooks. *Journal of Curriculum Studies*, 52(4), 451–477. doi: 10.1080/00220272.2020.1747116
5. Polikoff, M. S., Campbell, S. E., Rabosky, S., Koedel, C., Le, Q. T., Hardaway, T., & Gasparian, H. (2020). The formalized processes districts use to evaluate mathematics textbooks. *Journal of Curriculum Studies*, 52(4), 451–477. doi: 10.1080/00220272.2020.1747116

select high-quality math materials for their teachers and students, circumventing the typically long gap between statewide adoptions. After engaging in the cohort, participating districts are now well-positioned to adopt higher-quality materials.

The promise of this cohort approach is timely, given federal funds now available[6] to address COVID-19 pandemic-related instruction loss—particularly for students from historically underserved groups.[7] High-quality instructional materials are one of the best resources district leaders can provide their teachers, especially when amplified within the context of a larger, coherent instructional system.[8]

School districts are set to receive "the single largest federal investment in K–12 education we have ever seen—nearly $1 billion in total" in Elementary and Secondary School Emergency Relief (ESSER) funds.[9] California schools received $26.4 billion in federal and state COVID-19 relief funds,[10] which present districts with a unique opportunity to go beyond brief adoption processes to select high-quality materials that teachers deem both reliable and engaging for their students.

Lessons from this cohort model suggest that if district leaders and school boards are willing to challenge historical practices in the adoption process and adopt materials off-cycle using quality rating systems, they'll be better equipped to increase student math achievement.

Off-Cycle Adoption of Math Materials: An Underrated and Underutilized Opportunity for Advancing Student Achievement

The process of adopting mathematics materials in public schools rarely generates significant attention in education policy or practice, making data and research available on the topic scant—until recently.[11]

Long-term studies in English language arts (ELA) have broadened understanding of the link between early literacy and later success in school—for example, the link between increased access to and engagement with stories that capture students' imaginations early and later reading success.[12] However, even as STEM education initiatives steadily gain traction in education policy and even the

6. Hirsch, E., & Weisskirk, L. (2021). Invest in quality curricula now for long term returns. EdReports. Retrieved from https://www.edreports.org/resources/article/invest-in-quality-curricula-now-for-long-term-returns
7. Population Reference Bureau. (2020). Children, coronavirus, and the digital divide: Native American, Black, and Hispanic students at greater educational risk during the pandemic. Retrieved from https://scorecard.prb.org/coronavirus-digital-divide-education/
8. Taylor, J. A., Getty, S. R., Kowalski, S. M., Wilson, C. D., Carlson, J., & Van Scotter, P. (2015). An efficacy trial of research-based curriculum materials with curriculum-based professional development. *American Educational Research Journal*, 52(5), 984–1017. Retrieved from http://www.jstor.org/stable/24546750
9. Hirsch, E., & Weisskirk, L. (2021). Invest in quality curricula now for long term returns. EdReports. Retrieved from https://www.edreports.org/resources/article/invest-in-quality-curricula-now-for-long-term-returns
10. Willis, D. J. (2021). Find out how much California school districts and charter schools received in covid relief: Database. EdSource. Retrieved from https://edsource.org/2021/california-districts-and-charter-schools-get-covid-relief-funding-under-american-rescue-plan-act/650922#:~:text=The%20%2415.3%20billion%20that%20California,the%20pandemic%20and%20the%20recession
11. Polikoff, M. S., Campbell, S. E., Rabovsky, S., Koedel, C., Le, Q. T., Hardaway, T., & Gasparian, H. (2020). The formalized processes districts use to evaluate mathematics textbooks. *Journal of Curriculum Studies*, 52(4), 451–477. doi: 10.1080/00220272.2020.1747116
12. Phillips, L., Norris, S. P., & Mason, J. M. (1996). Longitudinal effects of early literacy concepts on reading achievement: A kindergarten intervention and five-year follow-up. *Journal of Literary Research*, 28(1). Retrieved from https://journals.sagepub.com/doi/pdf/10.1080/10862969609547915

national vocabulary, the importance of high-quality math materials rarely receives the same attention. Indeed, there is little shared understanding among education policy leaders of just how important high-quality math materials are, especially in accelerating math outcomes among students of color and in traditionally underserved districts.[13]

While there is a long list of urgent priorities for educators to address—especially in underperforming schools—many educators agree that access to high-quality materials is a critical lever for accelerating student achievement.[14] It is therefore vital that school boards, districts, and state leadership be supported in reworking the adoption process through an off-cycle adoption to advance their goals for student learning and school performance.

While there are state-directed procedures for going off-cycle, district leaders who see low academic achievement in their districts can begin this vital work now, though some school board–level policy changes may be needed.

13. Agodini, R., Harris, B., Atkins-Burnett, S., Heaviside, S., Novak, T., & Murphy, R. (2009). *Achievement effects of four early elementary school math curricula*. U.S. Department of Education, National Center for Education Evaluation and Regional Assistance, NCEE 2009-4052. Retrieved from https://ies.ed.gov/ncee/pubs/20094052/pdf/20094052.pdf; Chingos, M. M., & Whitehurst, G. J. (2012). *Choosing blindly: Instructional materials, teacher effectiveness, and common core*. Brookings Institution, Brown Center on Education Policy. Retrieved from https://www.brookings.edu/wp-content/uploads/2016/06/0410_curriculum_chingos_whitehurst.pdf; Schmidt, W. H., Burroughs, N. A., Zoido, P., and Houang, R. T. (2015). The role of schooling in perpetuating educational inequality. *Educational Researcher*, 44(7), 373.
14. EdReports. (2022). 5 reasons instructional materials matter for equity. Retrieved February 14, 2022, from https://www.edreports.org/resources/article/5-reasons-instructional-materials-matter-for-equity

Learnings from the Cohort

In 2020–21, Pivot Learning, EdReports, and the California Department of Education worked with 13 California districts and charter management organizations from across the state to establish a cohort learning model.

The goal of the cohort was to prepare districts to adopt new math instructional materials for grades five through eight. The sessions were designed so that by the end of the cohort, participants would be able to:

- Understand *how* to assess the quality of math instructional materials and why this is important in order to assess the quality of their current materials and/or other materials that they might consider adopting in the future.
- Understand what a high-quality adoption process looks like and its importance, and develop their own plan for the adoption of standards-aligned, high-quality math materials, including:
  - a math instructional vision;
  - a definition of quality instructional materials; and
  - a change management strategy for stakeholder engagement/buy-in.
- Articulate the role of materials adoption and implementation as an adaptive change process conducted over time, with multiple stakeholders engaged iteratively and centered on equitable student outcomes.

Participating districts learned about the adoption process and received resources to support the beginning of implementation of high-quality middle school math curricula. This model was constructed to address three ongoing challenges in math materials adoption.

Challenge 1: Math instructional materials affect instructional quality and are increasingly available. Yet statewide, many materials in use do not meet the minimum threshold of quality: alignment to state standards.

The California State Board of Education adopted the Common Core Standards for math and ELA in 2010. Four years later, supported by research indicating that the specific materials districts choose to teach those standards matter,[15] California recommended 31 Common Core-aligned math textbook programs for use by K–12 schools.[16] The 2014 adoption drew on materials from 2012, and because the list is static, it doesn't capture new and emerging titles that meet alignment criteria. The next list of state-approved curricula, delayed due to COVID-19, is not scheduled to be approved until 2024.

In the 2014 state-adopted materials list, the state board of education (SBE) approved materials that

15. Chingos, M. M., & Whitehurst, G. J. (2012). *Choosing blindly: Instructional materials, teacher effectiveness, and Common Core*. Brookings Institution, Brown Center on Education Policy. Retrieved from https://www.brookings.edu/wp-content/uploads/2016/06/0410_curriculum_chingos_whitehurst.pdf
16. California School News Report. (n.d.). California Common Core adoption timeline. Retrieved from https://caschoolnews.net/issues_guide/california-common-core-adoption-timeline/

present the California Common Core State Standards (CA CCSS) and met the requirements of a social content review that captured elements including the cultural and racial diversity of the state and positive portrayals of minority groups and diverse gender roles.[17]

A next step in the local adoption process is vetting materials to ensure that the standards are present in the right doses at the right time to support college and career readiness. In fact, EdReports found that nationwide, only 31% of math materials are fully aligned to standards.[18] EdReports noted that about 40% of math teachers in California use at least one content-aligned set of materials,[19] corroborating the growing scope of research on alignment.[20]

One participant cited that when materials are unavailable, teachers use materials recycled from pre-Common Core adoptions they'd found in their classrooms. Another stated that not all teachers knew California was still doing Common Core. In another district, a participant said some teachers did not see the distinctions between the Common Core standards and previous standards. Participants collectively pointed to a lack of adequate professional learning on the Common Core state standards.

Importantly, historically underserved students are even less likely to experience current and high-quality materials in school,[21] further exacerbating the disadvantages for students in socioeconomic, racial, and linguistic groups already at risk in predominantly low-performing schools.[22]

Further complicating the matter, cohort members indicated—and research supports—that standards-aligned materials do not always capture the full breadth of what students need in a quality curriculum. Standards alignment is necessary and should be considered the floor, not the ceiling, in assessing the quality of instructional materials.

Since the problem of misalignment and inconsistent quality in math materials is not limited to California,[23] [24] this cohort model also has national implications—especially in light of California's purchasing power and the influence of early adopters on the decisions curriculum publishers make about quality and content.

While states are not often resourced for a full and regularly updated review of the quality of materials,

17. California Department of Education. (n.d.). Social content review. Retrieved February 15, 2022, from https://www.cde.ca.gov/ci/cr/cf/lc.asp
18. EdReports. (2020). 2020 state of the market. Retrieved from https://www.edreports.org/resources/article/2020-state-of-the-market&sa=D&source=docs&ust=1638853346109000&usg=AOvVaw1R2wKjOu7PrFtULVWqUFxc
19. EdReports. (2020). State of the market. Retrieved from https://www.edreports.org/resources/article/2020-state-of-the-market&sa=D&source=docs&ust=1638853346109000&usg=AOvVaw1R2wKjOu7PrFtULVWqUFxc
20. Polikoff, M. S. (2015). How well aligned are textbooks to the Common Core Standards in mathematics? American Educational Research Journal, 52(6), 1185–1211. Retrieved from https://journals.sagepub.com/doi/10.3102/0002831215584435
21. TNTP. (2018). *The opportunity myth: What students can show us about how school is letting them down—and how to fix it*. Retrieved from https://tntp.org/assets/documents/TNTP_The-Opportunity-Myth_Web.pdf
22. Schneider, Barbara, Sylvia Martinez, and Ann Owens. 2006."Barriers to Educational Opportunities for Hispanics in the U.S.". Pp. 179-227 in Hispanics and the Future of America, edited by Marta Tienda. Washington, DC: National Academies Press. Retreived from https://scholar.harvard.edu/aowens/publications/barriers-educational-opportunities-hispanics-us
23. Boser, U., Chingos, M., & Straus, C. (2015). *The hidden value of curriculum reform: Do states and districts receive the most bang for their curriculum buck?* Center for American Progress. Retrieved from https://cdn.americanprogress.org/wp-content/uploads/2015/10/06111518/CurriculumMatters-report.pdf
24. Dysarz, K. (2018). *Checking in: Are math assignments measuring up?* Education Trust. Retrieved from https://edtrust.org/resource/checking-in-are-math-assignments-measuring-up/

current ratings for quality are available to district and county leaders via EdReports.org and its sister site in California, CalCurriculum.org. These sites provide ratings on alignment to standards and usability of math and ELA curricula for free.[25]

While adoption of new materials can be expensive, it is less expensive than other necessary priorities[26] such as personnel costs and professional learning or adherence to class size mandates. Since quality in math curricula is inconsistent,[27] and high-quality curricula have a more significant impact on student achievement than is often discussed, politics and bureaucracy should not slow districts and school boards from making the necessary math curriculum updates.[28]

Challenge 2: While classroom teachers serve on district curriculum adoption committees, they have often not been routinely engaged in discussions on why materials matter, what makes materials high quality, and materials selection best practices, according to CalCurriculum workshop participants. This may contribute to teachers spending hours seeking out materials on their own, which can result in even fewer standards-aligned materials in the classroom.

In California, districts' traditional adoption process has been brief, occasionally lacking transparency and a comprehensive approach. While state requirements exist (e.g., teachers must make up the majority of the adoption committee per Education Code Section 60002), findings from the cohort model suggest that districts pressed for time often only meet the minimum requirements. For example, some districts may hold one stakeholder meeting, move quickly to adopt materials without a thorough quality review, and immediately schedule publisher-provided teacher professional learning.

This is a problem because, regarding instructional materials adoption, administrators and teachers differ on what they value most. When surveyed by Pivot Learning, administrators from this cohort cited "level at which it is rigorous" as the most important element of curriculum while teachers prioritized "usability for teachers."

In math, even aligned materials can show "low cognitive demand" that "overemphasize procedural skills and fluency" without giving students a chance to "communicate their mathematical thinking."[30] Lack of student engagement is especially critical in math, where teachers are less likely than ELA

25. This is a nonprofit venture without funding from the textbook industry.
26. Boser, U., Chingos, M., & Straus, C. (2015). The hidden value of curriculum reform: Do states and districts receive the most bang for their curriculum buck? Center for American Progress. Retrieved from https://cdn.americanprogress.org/wp-content/uploads/2015/10/06111518/CurriculumMatters-report.pdf
27. Dysarz, K. (2018). *Checking in: Are math assignments measuring up?* Education Trust. Retrieved from https://edtrust.org/resource/checking-in-are-math-assignments-measuring-up/; https://edtrust.org/wp-content/uploads/2014/09/CheckingIn_MATH-ANALYSIS_FINAL_5.pdf
28. Chingos, M. M., & Whitehurst, G. W. (2012). *Choosing blindly: Instructional materials, teacher effectiveness, and Common Core*. Brookings Institution, Brown Center on Education Policy. Retrieved from https://www.brookings.edu/wp-content/uploads/2016/06/0410_curriculum_chingos_whitehurst.pdf
29. Polikoff, M., & Dean, J. (2019). *The supplemental curriculum bazaar: Is what's online any good?* Thomas B. Fordham Institute. Retrieved 2022, from https://fordhaminstitute.org/national/research/supplemental-curriculum-bazaar
30. Dysarz, K. (2018). *Checking in: Are math assignments measuring up?* Education Trust. Retrieved from https://edtrust.org/resource/checking-in-are-math-assignments-measuring-up/

teachers to find their materials engaging.[31]

The quality of teacher-student engagement is a well-documented lever for student achievement. If teachers deem the materials provided to be unworkable, they often leverage their own expertise and creativity in finding and modifying materials to meet their students' needs. In fact, if a district's adopted materials do not meet cognitive demand or engage their students well, teachers will spend significant time looking elsewhere. "More than two-thirds (69%) of teachers spend four or more hours per week creating instructional resources."[32]

Problematically, when teachers are searching the internet and cobbling resources together, what they find are disconnected lessons and activities that further contribute to the lack of coherence and alignment. Teachers allocate enormous amounts of their own time and effort to this endeavor—and while they may identify more engaging materials, it is also likely that they are selecting materials that are less well aligned to the standards.[33]

> "Some barriers we might encounter are buy-in from all stakeholders to change what they're doing now to anything new. That can be a struggle in our district. We still have some teachers hanging on to very, very traditional methods, like they don't even want to use the current adopted curriculum, they want to just use worksheets from long ago. So the framework also calls for more heterogeneous groupings, starting at a very young age and continuing on into quite a bit older, and currently, kids are separated as early as fourth grade. And so that could be a challenge."
>
> – participant from a Northern California school district

Limited educator engagement in the adoption decision-making cycles means that principals and teachers continue to prioritize different elements in curricula adoption. Without a district-led process to reconcile these tensions and make a set of transparent decisions on curricula adoption, curriculum implementation will likely be undermined.

Challenge 3: Adoption processes have historically been brief. This, coupled with a lack of resources and training opportunities, contributes to math materials adoptions not reliably including a focus on addressing inequities, e.g., supports being present for multilingual learner students.

This cohort review suggests that equity priorities are on educators' minds in the math curriculum adoption process—and with good reason.[34] California has the highest number of Multilingual Learners

31. Wang, E. L., Tuma, A. P., Doan, S., Henry, D., Lawrence, R. A., Woo, A., & Kaufman, J. H. (2021). *Teachers' perceptions of what makes materials engaging, appropriately challenging, and usable: A survey and interview study*. Rand Corporation. Retrieved from https://www.rand.org/pubs/research_reports/RRA134-2.html
32. EdNet Insight. (2016). *Classroom trends: Teachers as buyers of instructional materials and users of technology*. Market Data Retrieval. Retrieved from https://mdreducation.com/wp-content/uploads/2020/12/StateofK12Market2016_ClassroomTrends.pdf
33. Polikoff, M., & Dean, J. (2019). *The supplemental curriculum bazaar: Is what's online any good?* Thomas B. Fordham Institute. Retrieved 2022, from https://fordhaminstitute.org/national/research/supplemental-curriculum-bazaar
34. Schmidt, W. H., Burroughs, N. A., Zoido, P., & Houang, R. T. (2015). The role of schooling in perpetuating educational inequality. *Educational Researcher*, 44(7), 371–386
35. California Department of Education. (2011). The current California context. Retrieved from https://www.cde.ca.gov/eo/in/bp/bpcontext.asp
36. California Department of Education. (2022). Fingertip facts on education in California. Retrieved from https://www.cde.ca.gov/ds/ad/ceffingertipfacts.asp

in the country.[35] While 55% of California students are Hispanic or Latino,[36] just 20% of Hispanic or Latino students meet or exceed the standard in math. Only 26% of Native Hawaiian or Pacific Islander students meet the standard, compared with 18% of American Indian or Alaska Native students and 17% of Black students—while 45% of white students meet or exceed the standards.[37] For students in all groups, being economically disadvantaged impacts performance even further, mirroring the national reality that disparities remain even as white students are impacted by economic disadvantage.

While all students can benefit from intentional adoption processes, students receiving free-or-reduced-price lunch (i.e., economically disadvantaged students) are more likely to be using materials with lower levels of strategic thinking and cognitive demand.[38] Misaligned materials disproportionately impact students already at risk of not meeting math standards. As cohort members also suggest, districts setting equity-focused goals—regardless of the state's adoption timeline—would do well to align the curricula adoption process with their district's overall equity. In interviews, respondents talked about instructional materials with equity elements (e.g., the materials were tailored to Multilingual Learners or students with disabilities, or included interventions). At times, they mentioned a desire for a more rigorous, standards-aligned curriculum, and some districts explicitly mentioned equity as a part of the district math vision.

Cohort findings are consistent with a growing body of research suggesting that equity is addressed through the selection of instructional materials and pedagogical choices educators and administrators make—whether at the national, state, district, school, or classroom level. Therefore, it must be an intentional part of the adoption process.

Changes Made

While participating districts and CMOs indicated that participating in this cohort allowed them to learn how to run a more comprehensive curriculum adoption process and engage stakeholders more thoughtfully, just a few participating districts decided to adopt new math materials significantly early. These three participating districts—two CMOs and one traditional district—have benefited from a conducive policy context, wherein there are limited actual or perceived barriers to adopting new math materials off-cycle.

Most participating districts intend to adopt prior to the next math adoption list in 2024. A few districts indicated that the pandemic had delayed the adoption of other subjects, which subsequently pushed this adoption further out.

Many districts cited a lack of funding for adequate training and professional development opportunities for teachers as a significant barrier; some districts wanted to use the extra time to enable teachers to access adequate professional development to adopt and implement new curriculum. They also expressed interest in starting the adoption process earlier to allow for more time to build relationships and allow stakeholders to be in accordance with each other. Although, the surplus of funding currently for districts is at an all-time high.

37. California Department of Education. (2021). English language arts/Literacy and mathematics: Test results at a glance. Retrieved from https://caaspp-elpac.cde.ca.gov/caaspp/DashViewReportSB?ps=true&lstTestYear=2021&lstTestType=B&lstGroup=1&lstSubGroup=1&lstGrade=13&lstSchoolType=A&lstCounty=00&lstDistrict=00000&lstSchool=0000000&lstFocus=a
38. Dysarz, K. (2018). *Checking in: Are math assignments measuring up?* Education Trust. Retrieved from https://edtrust.org/resource/checking-in-are-math-assignments-measuring-up/

Conclusion

Adopting and implementing high-quality instructional math materials is time-consuming but essential. Delays related to COVID-19 notwithstanding, school boards and districts have an important opportunity to respond to policy mandates—using existing funding streams—and do something that can be meaningful for their educators and transformative for their students.

With a few changes at the state, county, and district levels, students can benefit from the high-quality math curricula needed to raise performance sooner rather than later. In turn, textbook manufacturers and curriculum designers can better serve districts making choices from more thoughtful, equity-driven, and informed positions on alignment and quality.

Recommendations for State and District Policymakers

Implications for Districts and County Offices of Education

For California districts: If current materials aren't high quality or serving students, don't wait to adopt something new.

- Districts, especially those that know that their materials aren't well aligned to standards and lack support for diverse learners, can begin the adoption process now rather than waiting for the state's new list in 2024. In some cases, this will require school boards to change their policies requiring selection from a state list; this change is compliant with state policy, which has procedures for adopting off-list.
- District leaders and school boards can replace some of the historical practices for adoption, focusing on materials that will help them achieve their vision of teaching and learning, and using data to inform the program options or choices.
- County offices can support districts with an ongoing, annual cycle approach to curriculum adoption or curriculum investigation, providing professional learning on the standards, instructional shifts, and other criteria needed in materials. Thinking of this process in a consistent and iterative fashion, counties have an opportunity to directly influence what is selected.
- County offices can also provide districts with different approaches to publisher engagement. The old practice of a publisher fair doesn't move districts to make better decisions based on specific needs. Counties can help districts work with publishers to ensure that the right questions are being asked and answered.

For districts nationally: While this process is not a step-by-step recipe all districts should follow, baseline activities for district adoption processes should include:

- A commitment to pulling a diverse group of stakeholders together to ensure that the voices of content experts, as well as teachers, are heard;
- A full review of curricular options based not only on alignment but on additional measures of quality, deploying the resources available on CalCurriculum.org and EdReports.org;
- An understanding of ways equity impacts decision-making about instructional materials and related supports for educators. When all students don't have access to high-quality instructional materials and instruction tailored to their needs, this becomes an equity problem.

Implications for the California Department of Education (CDE)

The state plays a crucial role in curricular decisions, and new messaging about adoption may effectively enable districts to select and implement curricula that respond to student/teacher needs.

- Better support districts in adopting math materials off-cycle, based on the needs of each district's students, teachers, and schools, by providing shared resources that assess curricular quality and help local vetting.
- Clearly communicate the purpose and limitations of the state list, including signaling on standards alignment and rigor and responsiveness to the needs of historically underserved students.
- Encourage the use of third-party external organizations that do review materials for quality and leverage those reviews as part of the state's overall list development. Reviews of additional measures of quality, differentiation support, English Learner supports, and cultural relevance can be made part of the state's recommended resources or direct review process.
- Given the influx of federal funds at the time of this report, CDE can also consider encouraging districts to use those funds to shore up their curriculum (even if off-cycle), especially in low-income districts in which students are more likely to have misaligned materials. Further, they can provide evidence and resources to support districts' understanding of the importance of instructional materials in improving academic outcomes for students and as a lever for reducing inequities in academic achievement.

Appendix: Organization Partners

CalCurriculum

CalCurriculum's goal is to help districts adopt and implement quality instructional materials by providing independent reviews, actionable resources, and guidance tailored to the California context. CalCurriculum is a partnership between Pivot Learning, a California-based national nonprofit, and EdReports, a national nonprofit.

Pivot Learning

At Pivot Learning, we work with educators to provide a rigorous, relevant, and inclusive public education for all students by developing instructional coherence and improving teaching and learning. Together, these efforts ensure that educators in schools and districts have the skills, knowledge, support, and materials to deliver high-quality instruction to every student every day.

Pivot Learning brought expertise in districts' adoption processes, including project management, evaluation/measurement, stakeholder engagement, and publisher and professional learning partner management to their role in coleading this cohort.

EdReports

Launched in 2015, EdReports is an independent nonprofit organization designed to improve K–12 education by increasing the capacity of teachers, administrators, and leaders to seek, identify, and demand the highest-quality instructional materials. EdReports' vision is that every student and teacher will have access to the highest-quality instructional materials, which in turn leads to better outcomes for all students.

To its role in coleading this cohort, EdReports brought expertise in math materials and instruction.

The organization also shared its reports that assess math instructional materials for quality, including standards alignment, as well as other tools that assess other aspects of materials quality.

The Decision Lab (TDL)

The Decision Lab (TDL) is a socially conscious applied research firm. Grounded by a mission to align individual and organizational decisions with social good, TDL provides behavioral science consulting, carries out research in priority areas such as education and mental health, and runs one of the largest publications in applied behavioral science. In the past, TDL has helped organizations such as the Gates Foundation, Capital One, and the World Bank solve some of their thorniest problems using scientific thinking.

The Decision Lab supported the cohort by providing research support and suggested behavioral interventions for district adoption processes to the project.