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Governance Brief

Effective Family Engagement: A Lesson From Common Core Math

by Troy Geierman with contributions from Eric Hoyer

Introduction

In 2010, the California State Board of Education adopted the Common Core State Standards for Mathematics (CCSSM) and, by 2015, most local educational agencies (LEAs) had adopted the new standards. Some LEAs made the additional change from direct instruction (lecture format) to collaborative learning (structured group work) and others switched from the traditional pathway to an integrated pathway for high school.

Ten years after the adoption of the CCSSM, teachers and school leaders are still facing challenges from parents about the standards. For this brief, eight teachers or education and family engagement professionals were interviewed or surveyed to share their insights on standards implementation and family engagement. The concerns uncovered through these interviews show how misconceptions about math standards can overshadow their benefits to students—in particular how the standards help students learn to apply math concepts in real-world situations. This brief highlights some of the misconceptions uncovered through these interviews, the importance of family engagement, and sample strategies and practices that districts can consider to improve their family engagement practices.

Teacher and School Leader Interviews Highlight the Need for Family Engagement

Teachers contacted for this brief cite a general lack of support and understanding of the standards from parents, even going so far as to blame the CCSSM as to why their child is struggling in math.^{1,2} School leaders face similar concerns from parents and are frequently asked why students have to explain their work or use multiple methods.³

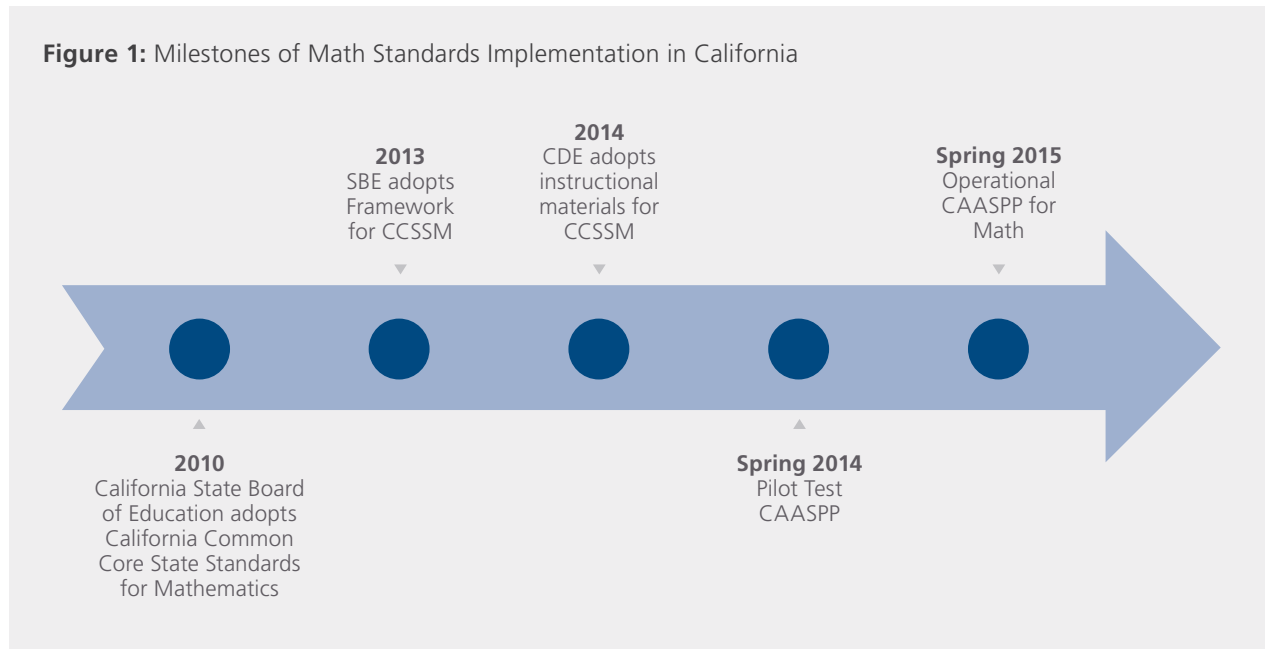
In this brief you will find:

- » Major milestones in the implementation of Common Core Math in California;
- » Insights from teacher and school leader interviews;
- » An overview of LCAP priority three (family involvement);
- » Research supporting family engagement;
- » Sample strategies for effective family engagement;
- » Promising practices from small and large district case studies; and
- » Questions for board members to consider.

Teachers and school leaders found that when they explained the CCSSM with a focus on why students are using different methods or writing explanations for math, they tended to gain support from parents.⁴ One teacher remarked that the opposition she encounters about Common Core tends to cease once the standards are explained.⁵ For the next decade or more, the parents of students being taught the CCSSM will have grown up with the former math standards. This ongoing concern about Common Core Math indicates a need for LEAs to communicate with and engage parents more effectively around the standards. Therefore, it is essential that explaining Common Core Math is included in parent engagement plans.

Milestones of Math Standards Implementation in California

Implementing Common Core Math has been a gradual process since 2010, as illustrated in this timeline of major implementation milestones in California:



Family Engagement as an LCAP Priority

The third priority set by the state for Local Control and Accountability Plans (LCAPs) is family involvement (engagement). Family involvement is defined by the California Department of Education (CDE) as seeking parent and family input, and participation in school planning and decision-making.⁶ The term “family involvement” reflects a commitment to engage not just parents and guardians, but also other family and community members in the process. For the purposes of this brief, family involvement, family engagement and parent involvement are used interchangeably.

The passage of Assembly Bill 2878 in September 2018 makes incorporating research-based practices a requirement for effective family engagement.⁷ These strategies may include: creating a welcoming environment, engaging in two-way communication, supporting student success, and empowering families as advocates for their students.⁸ This legislation is supported by extensive research that identifies family engagement as a significant and effective improver of student outcomes. Students are more prepared for school, more likely to achieve, and more likely

to graduate when they are supported by schools, families, and communities working together in a coordinated manner.⁹ These practices hold promise for increasing the understanding of the CCSSM by parents, guardians, and community members.

Summary of Family Engagement Research

Considering that children are awake for approximately 6,000 hours a year and only spend about 1,000 hours in school, it is easy to understand why family engagement has such a significant impact on student learning.¹⁰ In 2014, *EdSource* and the CDE, in partnership with WestEd, conducted comprehensive reviews of research on family engagement and found a similar positive relationship between family engagement and student success.¹¹ One study used economic modelling to examine the impact of parental involvement and found that the effect was equivalent to more than \$1,000 in per-pupil spending per year.¹² To put this in perspective, the impact of improved parental involvement would be equivalent to approximately an additional \$5 million worth of spending for a district with an average daily attendance of 5,000 students.

Additionally, a 15-year study found that students attending Chicago public schools with “essential supports”—such as strong school leadership, parent and community ties, professional capacity of the faculty, a positive school climate, and instructional guidance—were 10 times more likely to improve their math performance compared to those without those supports.¹³ This has been further supported in a more recent RAND Corporation study.¹⁴

Internationally, the Australian Research Alliance completed a comprehensive review of 40 years of studies on parental engagement in 2012.¹⁵ The review concluded that international research supports the claim that parental engagement has a positive impact on student achievement, including: higher grades and test scores, increased enrollment in advanced classes, lower drop-out rates, better school attendance, improved behavior, and a greater likelihood of enrolling in postsecondary education.

Yet, while the evidence supporting the value of family engagement is strong, candidates seeking a California teaching credential are not required to complete family engagement training as part of their credentialing programs.¹⁶ Without adequate training, teachers are not as equipped to implement a plan for family engagement. An engagement specialist who was interviewed for this project reported that

during their hiring process, the district did not have a vision for family engagement, but rather just a recognized need.¹⁷ Teachers surveyed for this brief reported they have received no professional development on how to engage parents.

With or without a formal parent engagement plan, teachers are interacting in various ways with parents throughout the school year, from homework assignments to parent-teacher conferences. When work is sent home, it can be assumed that most parents will approach math the way they were taught. Consider arithmetic, for example, which today’s parents are likely to conceive as a set of memorized facts and algorithms. In contrast, Common Core–aligned assignments often appear different, with an emphasis on developing multiple strategies and underlying concepts. Thus, even when family engagement is occurring on the Common Core Standards, it is happening with little guidance on what Common Core Math entails.

Strategies for Family Engagement

There are many resources to assist with the development of an effective family engagement plan. The California PTA has several resources on parent engagement that assist schools and families with increasing communication.¹⁸ AB

THE 5 Rs	
Reach Out	<ul style="list-style-type: none"> » Develop mobile STEM classrooms for families. » Use popular communication methods for messaging (e.g., social media, text messages). » Develop dedicated spaces on campus for STEM learning.
Raise Up	<ul style="list-style-type: none"> » Discuss math anxiety with parents and share resources designed to alleviate both parent and student math anxiety.²⁵ » Use math projects based on life experiences (e.g., sewing or tiling floors).
Reinforce	<ul style="list-style-type: none"> » Showcase STEM tools (e.g., puzzles, blocks, geometric toys) to build a rich home STEM environment. » Encourage reading at home, especially with resources that contain mathematical content. » STEM educators can communicate that simply holding high STEM expectations at home can influence children’s STEM development.
Relate	<ul style="list-style-type: none"> » Prioritize parent-child learning through events like math nights, where both can learn and network in a relaxed environment.
Reimagine	<ul style="list-style-type: none"> » Leverage external partnerships to fill in summer school or afterschool hours. » Universities and private philanthropy can offer ways of integrating cutting-edge science with curriculum (e.g., the Heising-Simons Foundation grants that promote early math and family engagement activities).

Source: Caspe & Lopez, 2018

2878 highlights that a plan may include, but is not limited to, elements designed to: support collaboration with families and the community, student learning, civic participation, and expanded opportunities for student learning.¹⁹ Researchers Margaret Caspe and M. Elena Lopez offer the following research based strategies, “the 5 Rs,” for promoting STEM learning.²⁰

Best Practices from California School Districts

For this brief, CSBA reached out to one large district and one small district to find out ways they are making parent engagement happen on the Common Core Math Standards. Below is what each district is spending per pupil on parent engagement, what personnel this supports, and the strategies they have employed.

Live Oak Elementary School District²¹

Santa Cruz. 2,100 students across 7 schools. \$49,500 (\$23.57 per pupil) budgeted in LCAP for family involvement.

Administration:

- » Committee using best practices research on parental involvement to inform process²²
- » Stipends for parent and teacher liaison positions
- » Contribute to salary of a shared Parent Engagement Coordinator with another area district

Key Strategies:

- » Parent trainings on English/math content skills and how to support academic growth
- » Staff trainings on how to create a welcoming environment
- » Requirements for teachers to make “positive” home phone calls
- » Develop a pool of translators based on local language needs
- » Student-led parent conferences focused on growth mindset

Elk Grove Unified School District.²³

62,675 students across 67 schools. \$1,813,000 (\$28.93 per pupil) budgeted in LCAP for family involvement.

Administration:

- » Office of Family and Community Engagement
- » Full-time program specialist
- » Committee using Partners in Education: a dual-capacity framework to guide process
- » Requirement that bilingual teaching associates used to support English learners in classrooms also be tasked to engage families

Key Strategies:

- » Home visit program that explains student achievement and provides resources connected to current lessons for parents to use
- » Staff trainings on parent engagement embedded into existing professional development
- » Parent trainings on the social-emotional well-being of students and themselves (healthy management of emotions, relationships, and understanding of oneself). Research has shown social-emotional learning to have a positive effect on academic success.²⁴

Conclusion

With the recent expansion of the LCAP priority on family engagement, California is raising the bar for LEAs. California expects a systematic plan supporting collaboration with families to expand student learning opportunities and promote civic participation. These expectations are based on numerous studies that correlate family engagement with an increase in student success.

When developing a plan for engagement, it is essential to address student achievement and to include Common Core Math. Despite being adopted by California in 2010, there still exists a need for greater communication and resources for families to support the CCSSM at home.

Districts and county offices of education must explore creating relationships and partnerships across departments, districts and outside organizations to leverage resources effectively when developing a parent engagement plan. Family engagement practices should be embedded into all trainings/departments and do not need to be a stand-alone program.

As a statewide issue, it is important to reverse the absence of a family engagement requirement to complete a California teacher credentialing program. Both

instructional and non-instructional staff need significant training and support to become effective at family engagement. School boards can do their part by adequately supporting professional learning in this area.

Questions for Board Members

1. **LCAP Priority Three:** What is your parental involvement plan in accordance with LCAP Priority Three? How can family engagement practices be tailored to include Common Core Math? How can current plans for staff professional development be modified to embed family engagement training?
2. **Families:** How might the LEA gauge parent understanding of the CCSSM? Are all family subgroups accurately represented on advisory committees? How is the LEA creating a welcoming environment for families? What kind of translation support is available?
3. **Administration:** Who leads for the LEA's family engagement plan? What kind of training do they have in parent engagement? Can resources be provided to bolster their skills, if needed?
4. **Collaboration:** What plans do neighboring counties/districts have for parent engagement? Is there a family engagement specialist who can be contacted for advice or partnership?
5. **Student Learning:** How are student expectations/achievement in math explained to families? Do families understand the data shared with them? What resources/training do families need to better support their students at home?
6. **Civic Participation:** What opportunities are families provided with to participate in decision-making in the district and school? Are families aware of how to join advisory or governing committees? How is the LEA developing leadership skills among families and staff?

CSBA Resources

Gamut Policy. CSBA's policy tool includes sample policies and administrative regulations for subscribers, available at www.csba.org/gamut

- » **BP/AR 0460** – Local Control and Accountability Plan
- » **BP/AR 6020** – Parent Involvement

STEM Research and Governance Briefs. Additional CSBA research and governance briefs focused on STEM can be found at www.csba.org/stem

Additional Resources

California State PTA.

- » *Family Engagement Equals Student Success* <https://bit.ly/2XssoNy>.
- » *Family School Partnerships* <https://bit.ly/2taZF36>
- » *What Your PTA Can Do to Promote STEM Education* <https://bit.ly/35z5Xe4>

California Department of Education. *Family Engagement Framework* <https://bit.ly/2GnOCE3>

Public Policy Institute of California. *Family Engagement Practices in California Schools.* <https://bit.ly/2UiUsAP>

Joyce Epstein and Karen Clark Salinas. *Partnering with Families and Communities.* <https://bit.ly/2V7n3xH>

Live Oak Elementary School District. *Parental Involvement Policy.* <https://bit.ly/2Zmqtvz>

Endnotes

- 1 Interview, Teacher 1, January 14, 2019.
- 2 See Endnote 1
- 3 Interview, Administrator for Office of Family and Community Engagement 1, January 28, 2019.
- 4 Interview, Teacher 2, February 10, 2019.
- 5 See Endnotes 1 and 3.
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- 19 See Endnote 7.
- 20 Caspe, M., Lopez, M.E. (2018) *The 5Rs: Research-Based Strategies for Engaging Families in STEM Learning*. Promising Practices for Engaging Families in STEM Learning. Caspe, M. et. al. Information Age: Charlotte, NC.
- 21 Live Oak School District. 2018-19 *Local Control and Accountability Plan Update*. Downloaded April 15, 2019 from <https://bit.ly/2KF0tGQ>
- 22 Epstein, J. & Salinas, K. (2004). Partnering with Families and Communities. *Educational Leadership*, 61(8). Retrieved from <https://bit.ly/2V7n3xH>
- 23 Elk Grove Unified. *Local Control Accountability Plan 2017-2020, Year 2*. Downloaded April 15, 2019 from <https://bit.ly/2GjsFeN>
- 24 Organization for Economic Co-operation and Development. Social and Emotional Skills. *Well Being, Connectedness and Success*. Retrieved April 15, 2019 from <https://bit.ly/2H2YJ94>
- 25 Berkowitz, T. et.al. (2018). *Supporting Science, Technology, Engineering, and Mathematics (STEM) Learning by Helping Families Overcome Math Anxiety*. Promising Practices for Engaging Families in STEM Learning. Caspe, M. et. al. Information Age: Charlotte, NC.

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