

MATH COMMON°

Three Structures in the Garden Grove Unified School District That Support Implementation of the Common Core State Standards in Mathematics

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WestEd's Evaluation of the Math in Common Initiative

Math in Common[®] is a five-year initiative, funded by the S.D. Bechtel, Jr. Foundation, that supports a formal network of 10 California school districts as they are implementing the Common Core State Standards in Mathematics (CCSS-M) across grades K–8. Math in Common grants have been awarded to the school districts of Dinuba, Elk Grove, Garden Grove, Long Beach, Oakland, Oceanside, Sacramento City, San Francisco, Sanger, and Santa Ana.

WestEd is providing developmental evaluation services over the course of the initiative. The evaluation plan is designed principally to provide relevant and timely information to help each of the Math in Common districts meet their implementation objectives. The overall evaluation centers around four central themes, which attempt to capture the major areas of work and focus in the districts as well as the primary indicators of change and growth. These themes are:

- » Shifts in teachers' instructional approaches related to the CCSS-M in grades K-8.
- » Changes in students' proficiency in mathematics, measured against the CCSS-M.
- » Change management processes at the school district level, including district leadership, organizational design, and management systems that specifically support and/or maintain investments in CCSS-M implementation.
- » The development and sustainability of the Math in Common Community of Practice.

Together, the Math in Common districts are part of a community of practice in which they share their progress and successes, as well as their challenges and lessons learned about supports needed for CCSS-M implementation. Learning for district representatives is supported by WestEd team members who provide technical assistance related to goal-setting and gathering evidence of implementation progress (e.g., by advising on data collection instruments, conducting independent data analyses, participating in team meetings to support leadership reflection). An additional organizational partner, California Education Partners, works with the community of practice by offering time, tools, and expertise for education leaders to work together to advance student success in mathematics. California Education Partners organizes Leadership Convenings three times per year, summer Principal Institutes, "opt-in" conferences on high-interest topics (e.g., formative assessment), and cross-district visitation opportunities.

Executive Summary

Now that California has been implementing the Common Core State Standards in mathematics (CCSS-M) for several years, many educators are interested in learning how districts across the state are faring. To provide some timely information on this topic, WestEd performed a year-over-year analysis of 2015 and 2016 data from the California Assessment of Student Performance and Progress (CAASPP) in mathematics for the 10 Math in Common (MiC) districts.

Specifically, we used the 2015 baseline CAASPP scores for the MiC districts' elementary, middle, and K–8 schools to create a prediction analysis for each school site's 2016 scores. We then compared actual CAASPP performance to the predicted scores for demographically similar schools across California. By showing which school sites overperformed and underperformed compared to the predictions, the findings allowed districts to look beyond demographic factors (which were statistically controlled for in our analyses) and see achievement in a new light.

While all of the MiC districts showed promising and interesting patterns of improvement versus their predicted scores, one that particularly stood out was Garden Grove Unified School District, where many schools significantly outperformed their predicted scores for 2016. These positive results provoked curiosity among districts and partners involved with the MiC initiative. We set out to explore what exactly was happening in Garden Grove to support this positive performance and what other districts might learn from Garden Grove's efforts.

To find out, a team of researchers from WestEd traveled to Garden Grove and interviewed district and site administrators as well as some of the teachers on special assignment (TOSAs) who play a crucial role in the district system. We also examined artifacts such as budgets and grant reports. This look inside Garden Grove's districtwide efforts offers practical information for other districts to consider when thinking about their own efforts to support and implement the Common Core State Standards in mathematics (CCSS-M). However, because the life of a school district is immeasurably more colorful and complex than what can be revealed through a few days of interviews, our findings are not meant to be read as a definitive account of Garden Grove's CCSS-M implementation activities.

Our work did reveal a set of three recurring themes that staff referenced as being central to their district's success:

- 1. Curriculum and pacing guide
- 2. Teachers on Special Assignment (TOSAs)
- 3. Professional learning system

This report includes a section on each of these three main ideas. In each section, we provide (1) a bulleted overview of key facts about the system or structure; (2) further descriptive information drawn from our interviews; and, (3) a brief list of reflection questions. We believe this paper's insights into several key drivers of success in one district should prove useful for educators and administrators across the Math in Common network and the state.



Introduction

"There's so much that goes into making the message that instruction and students are first. When you see that model day after day, that's how you start doing things."

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Specifically, we used the 2015 baseline CAASPP scores for our districts' elementary, middle, and K–8 schools to create a prediction analysis for each school site's 2016 scores. We then compared actual CAASPP performance to the predicted scores for demographically similar schools across California (see Appendix A for more methodology details). By showing which school sites overperformed and underperformed compared to the predictions, the findings allowed districts to look beyond demographic factors (which were statistically controlled for in our analyses) and see achievement in a new light.

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- Garden Grove Unified School District principal

was happening in Garden Grove to support this positive performance and what other districts might learn from Garden Grove's efforts.

Of course, the full story of any school district is too rich and complex to be fully explained in this type of brief report. But in these pages you will find Garden Grove staff describing, in their own words, their work, their beliefs, their successes, and their struggles. We believe this look inside Garden Grove's districtwide efforts offers timely, specific, and valuable information for other districts to consider.

Exploring Garden Grove's Districtwide Efforts

Our MiC colleagues in Garden Grove generously scheduled interviews between four WestEd staff and 18 members of the district staff, as well as the former superintendent (see Appendix B for interview protocols). We also drew on additional artifacts, many gathered over the three years that the district has participated in the Math in Common initiative. What we discovered from our investigation was just what we and many MiC colleagues anticipated — that there are complex, interlocking factors that enable Garden Grove to support student success.

Many of the structures Garden Grove invests in are no doubt the same ones that exist in other districts across the state. However, as educators don't generally have detailed documentation of how other districts are

The California Assessment of Student Performance and Progress is the official name for the state's implementation of the Smarter Balanced Assessment system.



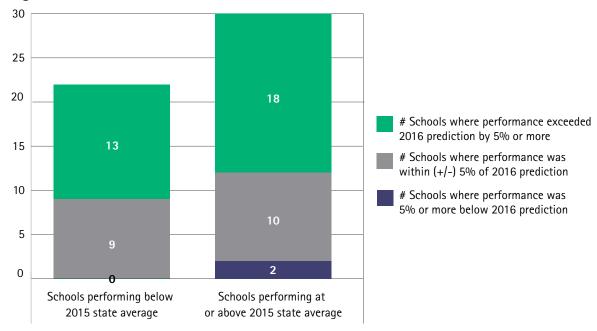


Figure 1. 2016 CAASPP Performance for Garden Grove K-8 Schools, Relative to Predicted Score

Note: The figure shows the distribution of 52 elementary, K–8, and intermediate schools that either outperformed the 2016 prediction (the number of schools shown in green), performed near the prediction (shown in gray), or performed below the prediction (shown in blue). The stacked bar on the left side of the chart includes schools that performed below the 2015 state average (i.e., 33 percent of students meeting or exceeding the standard; the stacked bar on the right includes schools that performed at or above the 2015 state average).

implementing the CCSS-M, this paper's insights into several key drivers of success in one district should prove useful for educators and administrators across the Math in Common network and the state.

Figure 1 above shows data from the analyses of the performance on the CAASPP in mathematics across Garden Grove's 52 elementary, K–8, and intermediate schools. In the figure, the 13 schools in green on the left bar and 18 schools in green on the right illustrate that the majority of district schools performed better than predicted on the assessment. The fact that only two schools performed 5 percent or more below their predicted scores in 2016, as shown in blue, reflects the strong overall performance of schools within the district. The remaining 19 schools shown in gray performed about as well as predicted; in most cases, these schools' actual performance exceeded performance in the 2015 year. (The school-level charts that were created for the district, with school names removed, are included

in Appendix A along with some additional information about the prediction analysis.)

A culture of coherence

Given the overall positive performance seen in Garden Grove (as illustrated in Figure 1), we wanted to explore what the district was doing to enable districtwide success. In our discussions with district staff, we learned that the district's "culture of coherence" and its dedication to customer service² provide a solid foundation for

² As we are not the first to acknowledge these central features of the district context, we refer readers to other descriptions of the district's guiding philosophies. For example, the Garden Grove Unified School District is featured as a case study in the book *Coherence* (Fullan & Quinn, 2015). In addition, a 2013 report by the American Institutes for Research for the California Collaborative on District Reform reported on the district's approach to human capital development that guides their improvement efforts (Knudson, 2013).

its work. Staff indicated that the culture has been built over decades to emphasize what we see as several critical factors in the district's success:

- » Strong relationships. Extended staff tenure and the development of leaders who have "grown up" in the system (e.g., moved from being classroom teachers to teacher on special assignment to assistant principal) helps create trusting and meaningful relationships across roles, deeper understanding of the "Garden Grove Way" (i.e., goals for students and processes to achieve those goals), and coherence within the system.
- » Access to, and a focus on, the classroom. Strong relationships with the district's union facilitates broad access for district administrators and instructional specialists to observe in classrooms, enabling them to see for themselves the promises and challenges of CCSS-M implementation teacherby-teacher and site-by-site and to understand what and how the students are learning. This access also supports authentic classroom learning opportunities.
- » Centralized decision-making. The district has centralized control over what happens at its schools. For example, the district reviews and signs off on how schools use their funding to purchase student support programs; staff are employees of the district rather than of particular schools and are deployed districtwide on the basis of perceived need; and the district pacing guide is followed closely enough to enable staff to discuss instruction in professional learning communities (PLCs) and collaboration meetings. The district employs triedand-true processes for rolling out new initiatives, involving teachers in decision-making to ensure buy-in, and moving ideas to the classroom (including pilot testing to scale programs).
- » A customer service mindset. "Take a second, make a difference" is an unofficial motto for district staff. Most everyone we spoke to defined their role in terms of service to others. For example, Instruction Office staff see the purpose of their work as making things easier for principals and teachers. This mindset creates a pervasive culture of collaboration and support,

which makes it easier for principals and teachers to share their challenges with administrators. This service-oriented approach is reflected in broad priorities as well as small interactions with colleagues.

Research on education reform indicates that coherent systems can have a positive impact on student achievement (Cobb & Jackson, 2011; Newmann, Smith, Allensworth, & Bryk, 2001). Given the coherent system features described above, the district's positive results in our prediction analysis should perhaps not be surprising. But how can other districts put into practice the kinds of mutually reinforcing systems and consistent messaging that have proven effective for Garden Grove?

While there is no "silver bullet" for improving systems to support student learning — a lot of moving pieces need to work and fit together — one important element of Garden Grove's success is its history of stable leadership and messaging, going back over a decade. However, it wouldn't be helpful for us to simply encourage districts to "implement a coherent districtwide system and then stay the course for 10 years." So, while we are not making causal links between the main ideas in this manuscript and student outcomes, this paper presents what we see as replicable elements of Garden Grove's work that other districts can learn from.

Across our interviews, Garden Grove staff made repeated references to three areas of work central to the district's success:

- 1. Curriculum and pacing guide
- 2. Teachers on special assignment (TOSAs)
- 3. Professional learning system

This report includes a section on each of these three main ideas. In each, we provide (1) a bulleted overview of key facts about the system or structure; (2) further descriptive information drawn from our interviews; and (3) a brief list of questions that other districts may want to consider as they take their own actions in that area. We hope that by describing how one California school district is approaching CCSS-M implementation, we may help other districts think about and improve their own plans for districtwide instruction and learning.



Curriculum and Pacing Guide

- » Garden Grove uses a mix of textbooks (Pearson enVision, Go Math!, Glencoe) for different grade levels; for K-8 math classes these are supplemented with "conceptual lessons" developed with the University of California Irvine Math Project (IMP).
- » Materials selection has relied heavily on a process known as a "teacher consult," which is a formalized structure for gathering and acting on teacher input and increasing teacher ownership of decisions.
- » The Office of Instruction reorganizes textbook materials into "units of study" by trimester and releases these units, along with pacing guides and benchmark assessments, at the beginning of the year.
- » Units of study and pacing guides create a common set of materials, which teacher collaborative groups can discuss and experiment with for instructional shifts.
- » K–6 teachers are asked to teach math for 60 minutes daily, and integrate 20 minutes of computational fluency into their instruction. Teachers in grades 7–8 have greater flexibility with their use of time for mathematics.
- » Lessons are guided by a common framework that describes how teachers should sequence instructional ideas for different types of lessons.

Instructional Resources to Support CCSS-M Implementation

In the 2014–15 school year, Garden Grove adopted new curricular materials that aligned more closely with the CCSS-M. After input from the district's teacher consult (see the Teacher Consults Guide District Decision-Making and Action text box) and seven months of pilot-testing, the district's board of education approved adoption of the Pearson enVision curriculum for grades K–6, the Houghton Mifflin Harcourt Go Math! series for grades 7–8, and Glencoe curriculum for algebra and geometry classes. The district then set out on a three-year "rollout" of these instructional materials, with the 2015–16 school year being the first year of full implementation.

Outside partnerships help guide CCSS-M focus

For the six years before the adoption of these curricular materials, Garden Grove had supplemented their previous K–6 Harcourt program (in place for 14 years) with

Swun Math. Although it was a supplemental program, the Swun Math approach — defined by district administrators as a procedural, direct-instruction approach to math instruction — became deeply embedded in teacher practice on a daily basis. District leaders knew the switch to Common Core-aligned math instruction, with its focus on mathematical discourse and reasoning, would be no small feat for teachers accustomed to the previous approach. To help guide their teachers, Garden Grove leaders turned to the Irvine Math Project (IMP), housed at University of California, Irvine.

"We'd been so procedural for so many years, which served us well [at the time]," a teacher on special assignment (TOSA) said, recalling the district's curricular needs before the shift to Common Core. To address what they saw as gaps in the adopted curricula and to directly address teachers' needs in light of the new standards, Garden Grove collaborated with IMP to develop a set of "conceptual lessons." These were added to the curriculum in all grades to deepen students' understanding of critical content areas. The district also organized in-depth summer professional development for teachers on the new lessons, led by both IMP and district staff (see the Professional Learning System section for more details). District staff told us the relationship with IMP has been essential in helping the district — administrators and teachers alike — ascertain what is "right" with respect to teaching the CCSS-M.

The district's trainings address a critical need among teachers — across the country, many teachers struggle with a lack of adequate content knowledge to support teaching the new standards (Harrington, 2017; Ma, 1999; Opfer, Kaufman, & Thompson, 2016; Sawchuk, 2012). A K–8 TOSA in Garden Grove reported, "[IMP] is the first time since I've been teaching that I've been trained on math content" — underscoring the importance of this initiative for those who may be struggling with content.

The partnership with IMP also enabled the district to modify its Effective Instruction lesson framework, which identifies characteristics of a high-guality lesson, provides an anchor to guide teachers in lesson planning, informs TOSA and principal feedback on instruction, and guides professional development (see also Knudson, 2013). The modification, called the Math Instructional Sequence, includes guidance for teachers about how their role may change across multiple types of mathematics lessons to align with the demands of the CCSS-M. For instance, the guidance indicates that every mathematics lesson should finish with "closure," a summary of what's been learned through the lesson: "Each lesson/period begins with an Opening/Orientation and ends with Closure, even if all steps in the instructional framework are not covered in a single day/period."³ As with any element of classroom instruction, the inclusion of a lesson closure will vary by lesson and teacher, yet the expectation of a closure in all lessons is a clear message from district leaders.

The district was able to establish their partnership with IMP in part through funding provided by the Math in Common grant. The partnership has developed with a recognition of the short-term nature of the grant funding and the need for future sustainability. The initial year of the partnership with IMP supported the TOSA team to map the curriculum and establish pacing guidelines to help staff understand the "big picture" of the standards quiding each unit, and how those standards are built on in the next unit. Over multiple years, the district has also been able to obtain IMP training for all TOSAs and all teachers on conceptual lessons. Such comprehensive training was intentional, to build internal capacity to train new staff in later years without the expense of collaborating with IMP. IMP staff might also provide some support during Garden Grove's professional development (PD) "Super Week," but the district is moving toward having internal staff lead most PD.

The CCSS-M's third Standard for Mathematical Practice emphasizes supporting students to construct viable arguments and critique the reasoning of others. Putting this mathematical practice in place was another significant hurdle for teachers and district staff who had not been asked to focus on student discourse under the previous standards. To address this, in 2014-15 the K-8 math TOSAs joined a massive open online course (MOOC) led by Kenji Hakuta for the Stanford University Understanding Language Initiative team. This course helped build knowledge about using student peer-topeer discourse to advance mathematics learning, which staff drew on to create an observation tool to measure student math discourse. Following the MOOC, the Stanford team has provided some additional guidance to the district on the observation tool.

A focus on student math discourse now deeply permeates the thinking of staff throughout the district, with teachers having greater clarity on the elements of discourse they should be using in the classroom to help students achieve the CCSS-M. Principals have received calibration training on how to look for student math discourse in the classroom. TOSAs also have ongoing opportunities to calibrate their understanding of

³ The Third International Mathematics and Science Study (TIMSS) found that U.S. classrooms rarely include a lesson summary (Stigler & Hiebert, 2009). In addition, WestEd's classroom observations across the Math in Common community during the 2014–15 and 2015–16 school years also revealed that classroom lessons frequently ended without any lesson summary or closure (Seago & Perry, 2017).

high-quality student discourse and refine their observation tools and data collection processes.

Unit Pacing Guide

"Having faith in the Office of Instruction enabled me to know that there was going to be clear direction for our teachers, and my role was to provide the feedback and the follow-up to them so they could implement the initiatives of that year." — Former principal

During the professional learning Super Week session for grade-level teacher leaders, the Office of Instruction releases the yearly unit pacing guide and provides training on how teacher leaders can guide their teams to make adjustments as needed. This guide reflects what one administrator referred to as Garden Grove's "centralized plus" model of instruction - the curriculum and pacing are centralized, but with the understanding that site teams can make changes according to localized needs. Current pacing documents include instructional activities suggested by IMP; identify major standards and sources of additional instructional support; and provide a brief rationale for the placement of unit ideas, which we were told is helpful to teachers faced with skipping around and combining multiple units of the textbook. The pacing guides also include instructional strategies that district leaders recommend, particularly to enhance students' mathematical fluency - for example, encouraging K-6 teachers to build in Number Talks about two times per week (see Chapin, O'Connor, & Anderson, 2009, for more information on Number Talks).

The Office of Instruction makes changes in organization and formatting and adjusts unit pacing for the different grade-level groups (K–6, 7–8, 9–12) each year to reflect teacher and TOSA input. The district's "teacher consult" structure is a formal way to learn from teachers what needs editing in the pacing guides. "We're not the ones actually teaching it," a district administrator said, "so that's why we want to hear from them." Some teacher feedback has included, for example, wanting to better understand the rationale for why a lesson is included in the pacing guide or why lessons are set in the order suggested. District staff have in the past called on their partners at IMP to help them respond to teachers' questions and feedback. For example, IMP has helped the district provide more guidance on the integration of the IMP lessons to the grade 7–8 pacing after the first year of implementation.

While other districts have also adopted curriculum materials and set lesson pacing, our interviewees highlighted several key themes related to Garden Grove's pacing guides that they felt made them particularly powerful for instructional improvement. As we describe below, the pacing guides set clear expectations, foster group accountability, and support opportunities for collaboration and data collection. Schools and teachers, we were told, "[feel] a lot of comfort in knowing what the expectations are."

Clear expectations. Office of Instruction staff believe that the stable, consistent approach in the pacing guides provide "clear expectations for teachers and for implementation," allowing students who transition among schools in the district (around 20 percent of the district's students annually) to "go from school to school and not miss a beat." District culture is broadly supportive of this centralized approach. As one district administrator told us:

We own the centralization of our district proudly. The teachers are well aware of it. When I became a principal [coming in from outside Garden Grove] one of the things I was surprised by is when I would ask the teachers, 'How are we going to do this?' they'd always say, 'Well, what does the district want us to do?' They weren't ready to go in a direction that wasn't fully supported by the district Office of Instruction. And that, to me — coming from a highly decentralized district — was surprising and a little off-putting at first. But then I learned to really embrace it and love it...Having faith in the Office of Instruction enabled me to know there was going to be clear direction for

Making the Change from Procedural to Conceptual

"Many teachers at all levels struggled with the teaching of conceptual lessons. They were very comfortable with procedural instruction and were having difficulty understanding their role in conceptual lessons as well as 'how' to teach them. There were many instances of making a conceptual lesson into a worksheet or giving the students the procedure when they began to struggle conceptually. The idea of 'productive struggle' was a challenge for many teachers (especially at the 7-8 level). Teachers in grades 2-8 were surveyed about their implementation of IMP conceptual lessons and reported a high level of implementation (98%); the quality of implementation was the area they reported struggling with." - From a Garden Grove School District report to the Bechtel Foundation (2016)*

* Upon seeing this quote from the grant report again, a district administrator told us that she has seen some improvement since that time point. She said there were fewer teachers using conceptual lessons in procedural ways, but in her opinion perhaps still a bit too much scaffolding of instruction.

our teachers, and my role was to provide the feedback and the follow-up to them so they could implement the initiatives of that year.

District administrators see this centralization as part of their customer service orientation. Because the district puts in so much work on curriculum and pacing, the teachers "don't have to spend time looking for materials – they can just focus on teaching."

Group accountability. The pacing guide includes a suggested number of days for each unit, although site-based/course-alike teams have the flexibility to adjust the number of days per topic within the unit as

needed. Nevertheless, TOSAs report that at a given site and grade level, teachers are typically within a few days of one another on the pacing guide. This allows them to have deep conversations about their instruction, with the expectation that peers are working on parallel lessons. As a district administrator reported, "There's accountability not only in terms of 'Are you on the right page?' but also 'Are we teaching these lessons the way we planned to do?' And in the reflection piece, thinking about what we can do differently to make it better, and how to generalize those learnings to the other content areas."

This "peer pressure" promotes a culture of fidelity to the pacing guide. It also helps to head off potential "backsliding" to instructional routines from years past. One administrator told us that there are still growing pains in terms of shifting math instruction in the district away from highly procedural methods: "It's been difficult for the teachers — they want to go back to procedural math...[but] they can't. It's in the pacing. They just can't."

Release time and TOSA support for collaboration.

A weekly early-release Wednesday includes 60 minutes or more of site-based collaboration time, which provides an opportunity for teachers in the same grade levels to check in with one another about common lessons. In addition, TOSAs work closely with schools, which enables TOSAs to support teachers' collaboration around curriculum and pacing (see the TOSA section for more details). The early-release time is structured so that sites can choose to use one meeting per month, or half of two meetings per month, to work with their Instructional Leadership Team (ILT)⁴ on a Plan-Do-Analyze-Repeat cycle; the other time is more informally used for planning.

⁴ ILTs at each site are a team made of the principal, the TOSA, and one teacher leader from each grade who meet monthly. The teams select a content focus each year and conduct a collaborative Plan-Do-Analyze-Reflect (PDAR) process related to the district's pacing guide in this content area. For more about ILTs, see the text box, "ILTs support learning and leadership across the system."

A TOSA described how teachers collaborate around material during an ILT Plan-Do-Analyze-Repeat cycle (see text box, "ILTs support learning and leadership across the system") in the following way: "During collaboration time they'll come back and debrief. They've all done the lesson, the pacing's really on time, they're pretty much on the same day doing the same lesson. It's interesting to hear their talk at lunch. They talk about, 'How'd that zipline lesson go?' Sometimes it depends on the teacher. [One will say] 'It went really well,' and then they start asking, 'We planned it together but what was the key?' Maybe it's just a few tweaks here and there a teacher frontloaded too much, or didn't and let it go too much. Because of pacing and because the timeline is so well defined, teachers can have that common conversation even at lunch time, or at collaboration time."

Formal and informal opportunities for data collection

on instruction. When asked how they know if teachers are implementing instructional materials as recommended in the pacing guide, math TOSAs reported that they rely on both informal data collection and more formal sources to guide their understanding. "We get a feel for what's going on because my team is at the sites so much...the teachers are pretty honest with us." Also, at mandatory trainings, TOSAs might show a specific lesson, ask teachers if they did it, and record their responses. The mandatory nature of many trainings enables district math leaders to collect broad input on such measures of implementation at particular points in time.

Questions to Consider

The following are questions for educators and administrators to consider in the context of their own districts' CCSS-M implementation efforts:

- » What additional district supports are needed to create a supportive environment for how teachers access and use instructional materials (e.g., consistent pacing guides, prioritizing substitute coverage)?
- » How does your team leverage outside partnerships to make decisions about central instructional ideas and the best materials to achieve them?
- » How well has your curriculum rollout process served the district to achieve the big instructional shifts of the CCSS-M? Do you pilot new ideas before going big with them?
- » How well is the order and pacing of curriculum working at different sites and grade levels? How do you track the effectiveness of the curriculum?
- » How are you supporting teachers to make good decisions about using and/or supplementing your curriculum?

Teacher Consults Guide District Decision-Making and Action

"Our programs were chosen by teachers. They were not chosen by the district. We have consults where the teachers are piloting, they come back and give feedback on the programs, and then they take a vote at the end. And that's what is chosen for our district. It's not chosen by people in an office somewhere that haven't used it. That's very important to teachers, they appreciate that." – *District TOSA*

"[Teacher consults] help with the support of whatever's chosen. We can say, 'This was chosen by the consult.'"- *District administrator*

Garden Grove's teacher consult process plays a particularly important part in both the adoption of instructional materials and in the pacing recommendations. A consult convenes central office staff and the district's teachers' union to identify, select, and provide release time for teachers to explore a "problem of practice" and to identify solutions alongside district administrators (Garden Grove Education Association, n.d.; Meyers, Rodda, & Alleyne, 1975).

For example, in order to decide which standardsaligned materials to adopt, in 2015-16 the district convened a consult with 80 K-12 teachers and administrators, led by the directors of instruction and supported with grade- and department-level facilitation by the TOSAs. During the consult process, teachers reviewed curriculum materials, collected and analyzed student data from pilot classrooms, and reviewed teacher and administrator surveys. These conversations were structured within and across grade levels. The consult made a unanimous decision to recommend Pearson enVision for K-6 and Houghton Mifflin Harcourt for 7-8. In their final evaluations for the consult, the district told us that teachers said this was the most meaningful and effective consult in which they had participated.

Other teacher consults in Garden Grove provide guidelines for instruction, for example, with respect

to unit time allocations in the pacing guide. After the consult, an outside group of teachers are selected to pilot test the district guidelines and make additional recommendations. Through this process, where central office recommendations about instruction are based on teacher input, the district is able to generate informed guidelines and build buy-in of other users.

Garden Grove has also used the teacher consult process to provide support for revising the pacing guides. In April or May of each year, district leaders spend two full days as a team that includes math TOSAs, some teachers, and often their IMP partners, to work on pacing. "What's hard," we were told, "is there are units of study that make sense for kids, but units of study are not always what the publisher's created. They've created a book that's easy for adults to use. So guite often we go out of order. That's very frustrating for our teachers, they would like to go front to back...You could teach every lesson in Pearson and teach for a year and half. We pulled lessons out of Pearson and IMP in order to make the most cohesive units of study for kids, because we want [to] make sure our kids are prepared for the Smarter Balanced assessments...We make sure we get teacher input [on how long lessons take] before we do pacing." After the district revised the pacing guides by incorporating additional teacher feedback from a year of classroom implementation, a district leader reported that "we have heard far less 'rub' this year on the pacing."

The teacher consult sometimes also provides additional recommendations on how teachers can support their students. For example, the district formed a "gap group" to support struggling learners in grades 7–8 because teachers felt students were showing up with knowledge gaps. A district administrator reported that the district convened this group of teachers four times to identify gaps at different levels and to help the district think about how to "fill the gaps" starting in 6th grade by providing additional targeted lessons and tangible material to address students' needs.

Teachers on Special Assignment (TOSAs)

- » By spending dedicated time at sites and the central office, Garden Grove's TOSAs help create "open systems" across all district layers: district office staff, principals, and teachers.
- » TOSAs are supported to be extremely "customer-facing" and reliable at their sites district leaders feel it is a priority for them to be at their site.
- » The TOSA position is one rung in the district's robust leadership pipeline. Teachers frequently become TOSAs, TOSAs become principals, and principals become district administrators. Principals understand and value TOSAs at their sites because they often were TOSAs themselves.
- » TOSAs' site-based work is built on strong relationships; they take the "long view" of building relationships over years.

A Central District Asset: TOSA Strength in Numbers

"We always say that TOSAs are the 'secret sauce.' They're experts in curriculum and instruction . . . and they build solid relationships with the teachers."— District administrator

The TOSAs' work, under the guidance of the Directors of Instruction, is to provide support for standards, practices, and implementation of district instructional materials.

In Garden Grove, there are two kinds of TOSAs. "Subjectarea TOSAs" provide the primary guidance for staff in the district in their respective subject area (in this paper, we focus on the math TOSAs) — for example, shaping the nature of the mathematics instruction supported across the district. "Site TOSAs" are assigned to specific school sites to carry the message regarding the focal instructional ideas and to provide support for their schools to implement these ideas. The site TOSAs may provide support for multiple content areas or also serve as school coaches in a more general sense.

In the 2016–17 school year, the district has 26 K–6 site TOSAs. These TOSAs choose one of four primary focus areas: math, English language arts (ELA), writing, and special education. In addition, the majority of these

TOSAs are assigned to one of five secondary focus topics: early childhood/Spanish language; instructional technology; personal skills; new teachers; and "beyond the core" (i.e., science, social studies, and physical education). The district currently supports three full-time K–8 math TOSAs and has a six-member K–6 TOSA math team and a four-member 7–12 TOSA math team.

Multiple interviewees commented on the stability of the funding for TOSAs over time, confirming that even in the years of the state's financial crisis, funding for TOSAs was maintained. After MiC funding is discontinued, the district will continue to fund TOSA costs through other funding streams.

At school sites. On average, site TOSAs are asked to work at school sites three days per week, Tuesday through Thursday. Site TOSAs work closely with their two assigned school sites, while K–8 Math TOSAs work with a larger number of sites (see Table 1). For example, in 2015–16, the district funded four K–8 Math TOSAs; each of these individuals was assigned to 11 K–6 school sites and two or three grade 7–8 sites.

Data reported by the district from the 2015–16 school year indicated that of the district's 45 K–6 sites, all but 8 utilized their K–8 Math TOSA in some capacity; all 10 of the grade 7–8 sites used their K–8 Math TOSA. These data also revealed a great deal of variation in the amount of time spent and the ways in which TOSAs

YEAR	NUMBER OF K-8 MATH TOSAS	NUMBER OF SITES PER K-8 MATH TOSA	NUMBER OF K-12 SITE TOSAS	NUMBER OF SITES PER K-12 SITE TOSA
2015–16	4	Grades K–6: 11	Grades K–6: 26	2
		Grades 7–8: 2–3	Grades 7–12: 23	2
2016–17	3	Grades K–6: 14	Grades K–6: 26	2
		Grades 7–8: 3–4	Grades 7–12: 23	2

Table 1: Allocation of Teachers on Special Assignment, 2015–16 and 2016–17

provided site support. To address variation in how sites use their TOSAs to meet district goals, district Directors (e.g., Director of K–8 Math and Directors of Instruction) review data on school performance and TOSA support to create an ongoing support plan for all schools, especially for schools that did not request TOSA assistance.

In the 2016–17 school year, the district funded one fewer K-8 Math TOSA positions (for a total of three) than the previous year, with the intention of building additional math-specific capacity for the K-6 and 7-12 Site TOSAs. In the 2016-17 school year, K-8 Math TOSAs are asked to reserve Tuesdays and Thursdays to support their 14 K-6 sites; Wednesdays are reserved for providing support to three or four grade 7-8 sites. "[TOSAs] have a good pulse on what's going on, who they need to jump in and help," one interviewee said, expressing a common sentiment about the value of the TOSAs' dedicated contact with sites. Table 1 shows a reduction in math TOSAs and a stable allocation of site TOSAS, consistent with the district's idea of directing district resources toward supporting the capacity for implementation at the site level.

In the central office. In addition to site support, TOSAs work at the district's central office two days per week (Monday and Friday) to develop their own learning and to share learning within and across the

district. Seventy-five percent of TOSAs' district office time is used for weekly TOSA staff meetings to enable TOSAs within all four primary focal areas (math, English language arts [ELA], writing, and special education) to get on the same page by receiving updates on site- or department-level activities (e.g., content of planned training sessions), obtaining feedback, and reviewing progress. For example, the K-6 group might present and request feedback on their work before rolling it out to a larger audience. The Director of K-8 Math meets with all Math TOSAs (across grade levels) for one hour per week to build vertical alignment. The remaining 25 percent of TOSAs' time in the central office might involve additional projects, such as planning and revising the district's companion course (i.e., an intervention for grade 7-8 students) or planning for the Summer Math Institute.

District leaders report that having TOSA collaboration at the central office strengthens alignment of practices, terminology, and instruction across the K–6 and 7–12 grade levels. This has allowed them a deeper understanding of the standards' vertical progressions — a shift of central importance to the CCSS–M — and expectations for students at different grade levels. When the TOSAs return to their sites, they can share this expanded awareness of a student's vertical progression to teachers and principals at each site.

TOSA Support Builds on Strong Relationships and Reliable Presence

"The 100 percent unfailing commitment to never have your TOSAs pulled to be a sub...the district's commitment to provide all that for us makes this possible from the large-scale operational perspective — I never forget that. I never have to worry about it. That's an amazing investment this district has made and they've never wavered on it that I've seen." — Principal

TOSAs and principals both reported that TOSAs are integral to the functioning of the sites. "We are part of the team," one TOSA said. "We're not the administrator by any means. We're looked at as the opportunity and the support that's being provided. [Principals say] 'Hey, let's brainstorm. What would be best for our staff?' We're part of that staff."

By feeling "part of the staff," TOSAs say they can take the long view of relationship-building with any reluctant teachers as they embed themselves in the work both at the site and within the district. After making investments in relationships, "A couple years down the line you can have a conversation with a teacher who has been reluctant, because they [grow to] trust you."

TOSAs attribute much of their success in gaining the trust of teachers to the ways they position themselves as learners alongside teachers and principals. A TOSA said, "ILT allows us to work with principals at an instructional level as well. We're getting better at our craft and they're getting better at their craft." Another told us, "It's a good way to get into classrooms with those teachers where you might not be able to get in — just say, 'Hey, can I use your classroom to try something out?' It's been a great way to build that relationship." Through these kinds of conversations, TOSAs model a learning mindset and make themselves vulnerable instead of presenting themselves as experts or evaluators.

This learning mindset extends from TOSAs to principals to district administrators. For example, the former

superintendent told us, "I would go out and do my best to teach what we were asking them to do in the way we were asking them to do it. I would often bring a coach with me because I wanted them to see I need coaching too. Coaching isn't a bad thing, it's a good thing. Athletes pay a...fortune for it, so why wouldn't we as professionals get it?"

TOSAs' relationships are also strengthened by their steady and reliable presence at sites. Their service and support can be counted on from week to week and from year to year. Many remarked that the weekly time allocation for TOSAs to be at sites is, for the most part, non-negotiable. The "customer service" orientation of the district makes it clear that TOSAs' work at schools has priority over work at the central office. Principals and teachers can count on TOSAs to be where they expect them to be. As one principal mentioned, "The 100 percent unfailing commitment to never have your TOSAs pulled to be a sub...the district's commitment to provide all that for us makes this possible from the large-scale operational perspective – I never forget that. I never have to worry about it. That's an amazing investment this district has made and they've never wavered on it that I've seen."

Under Common Core, principals across the state are being asked to do more and more at their sites, and Garden Grove is no exception. But because of their faith and trust in their TOSAs, principals are grateful to have TOSAs to rely on when they are overwhelmed. A district administrator, reflecting on her time as a principal, said, "About two years into me being a principal, the shift came from being a manager to the expectation that I would be an instructional leader at my site. So I had to rethink, how do I run a school? How do I utilize the resources that are available to me? ...Now I can't do it by myself, so that's when your TOSA becomes invaluable, the Office of Instruction becomes invaluable."

Because of the leadership pipeline within the district, many principals were previously TOSAs and therefore understand and support the TOSA's role and importance at the site. With the stability in the scheduling of TOSAs, and TOSAs' own commitment to their role, principals know



that they can count on their TOSAs to provide additional instructional leadership for their site and to deliver a consistent message about the instructional foci of the district.

TOSAs reported on several ways they provide support at their school sites and in the district, and how their work centers around classroom math instruction:

- » Classroom work with teachers: Respond to requests for collaboration with individual teachers; co-plan/co-teach demonstration lessons with individual teachers and grade-level groups.
- » Grade levels within a site: Work with gradelevel teacher leaders on issues such as pacing or lesson study.
- » School: Conduct "discourse walks" into classrooms alongside the site administrator, gathering data specific to the instructional focus. Work with the Instructional Leadership Team (ILT) to engage in Plan-Do-Analyze-Repeat cycles. Support or facilitate staff meetings or professional development in consultation with the principal.
- » District: Facilitate districtwide professional development and teacher consults, planning of district Super Week and Summer Math Institute.

TOSA Training

The TOSAs' clarity on mathematics instruction is greatly informed by the district's adopted math materials and pacing guide and its partnership with the IMP project. All TOSAs have participated in the IMP trainings during specific staff meetings in order to build capacity for K–6 Site TOSAs who do not have a specific math focus to gain an overview knowledge of the units so that they are familiar with them if a math teacher asks about them. The math-focused TOSA team has also attended additional IMP "preview" trainings three times during the 2016–17 school year. These previews enable them to facilitate the IMP teacher trainings and provide classroom support. District TOSAs also participate in other more standard forms of professional learning, such as the annual National Council of Supervisors of Mathematics meeting and other math conferences.

Questions to Consider

The following are questions for educators and administrators to consider in the context of their own districts' CCSS-M implementation efforts:

- » TOSAs can be crucial conduits for transferring information and priorities from classrooms to the district office – but only if they are valued in all sites and have access to classrooms. What is the reach of your coaching or TOSA program?
- » How do you support TOSAs/coaches in building relationships? When TOSAs or coaches have a strained relationship with a teacher or principal, how is that handled to develop a productive, beneficial relationship to support instructional improvement?
- » How do you ensure that TOSAs/coaches deliver a consistent message about math instruction to your sites?
- » Is there a mechanism for TOSAs/coaches to share their knowledge of sites back to district leadership? If so, what is done with that information once shared?
- » How would your principals describe their relationship with TOSAs/coaches?
- » How do you build your TOSA/coach capacity? How do they receive professional development?

Professional Learning System

- » While "Super Week" the district's stipended summer professional learning week is optional, all teachers are expected to implement learning from Super Week. Those who can't attend Super Week learn via afterschool opportunities and targeted TOSA support.
- » Professional learning opportunities are routinely attended by principals, TOSAs, and district administrators, communicating the importance of the learning and allowing for consistent follow-up support throughout the year.
- » Professional learning experiences follow a clear, reliable schedule. Summer learning experiences are planned by spring and follow-up professional development is calendared at the beginning of the school year; meetings are not canceled.
- » Several professional learning structures emphasize planning for, implementing, and reflecting on classroom instructional strategies, with a central focus on student learning.
- » The district launches new teaching strategies through pilot tests, allowing ideas to gain teacher buy-in through word of mouth. The district gathers data on results of new teaching strategies so adjustments can be made.
- » The districts' professional learning is informed by teacher feedback gathered from pilot tests, annual surveys, focus groups, and informal communication.

Summer Professional Learning

"It's a mad rush to sign up for Super Week. Teachers are saying, 'I want to know what is up and coming for this year...I want to be prepared so on day one I'm on the right track.'" – District administrator

Super Week. Super Week consists of a week-long menu of courses across content areas that teachers select according to grade. For K–8 teachers, these include Irvine Math Project (IMP) trainings on the conceptual lessons built into every unit as well as topics like technology integration, standards, fluency, and vertical alignment with secondary math.

While Super Week is technically optional, a district administrator told us, "The culture in our school district is that everybody goes." She indicated that the combination of strong expectations surrounding Super Week attendance and the expectation that teachers are to continue working on the content they learn in the summer with colleagues and instructional leaders throughout the year creates an excitement and urgency around Super Week.

In summer 2016, 85 percent of K–8 teachers attended courses during Super Week, and district math leadership monitors who does and does not attend. At the beginning of each school year, site administrators receive a list of their teachers who attended each training during Super Week. Teachers who were unable to attend Super Week (15 percent in 2015–16) are not left out, but are expected to make up the learning during the school day, with a substitute provided for their class.

A district administrator told us, "As an administrator, if someone didn't go, I would tap their TOSA...I still have the expectation that you're going to do [what was taught in the training] if you went or not. It's optional, but it's not optional for our kids." This attitude is paired

"Using the Group to Move the Group"

District staff told us that the Summer Math Institute (SMI) has scaled through word of mouth. After a teacher attends SMI, "her enthusiasm coming back from that generates a buzz." That teacher could then invite a colleague to a followup meeting that would put them on track to join the subsequent year's SMI. "That [enthusiasm] builds momentum and builds natural leadership." a math administrator told us. This word-of-mouth interest from the district's teachers is an example of one of the ways Garden Grove makes a practice of using Michael Fullan's ideas about "leading from the middle," or as one math administrator put it, "us[ing] the group to move the group."

Similarly, principals' attendance and commitment to professional learning builds their "street cred" by positioning them as learners alongside teachers and giving everyone a common language with which to discuss instructional shifts throughout the year. As one site administrator put it, "You're in the trenches with your teachers. You're not just running the school. Anyone can 'run the school' but can you move your school forward by providing the feedback, being visible, being involved, helping drive the focus, and knowing what resources to provide your teachers?" Principals who are plugged in to teacher learning goals can more readily identify areas of need and call on TOSAs for targeted support.

remediation to include meaningful teacher professional development as well as student remediation. Lessons are provided to teachers (thereby limiting the focus on lesson *creation*) and teachers plan together how to facilitate a lesson to support specific district focal ideas. The SMI is optional and by application. It was attended by 80 teachers in 2016, doubling the participation from 2015. In 2016, the SMI was offered in two two-week sessions and teachers could participate in one or both sessions. In summer 2015, 32 out of the 40 SMI teachers opted to join the district's Discourse Collaborative,5 which is open only to SMI teachers and offers additional learning for these teachers throughout the year.

District leadership and principals also make a point of attending Super Week and SMI both for their own knowledge development and in order to underscore the importance of the teachers' learning. For example, the Director of K-8 Math attended every day of SMI in 2016, rotating among the sites in order to make contact with more teachers. Principals also told us they follow their TOSAs' recommendations about which sessions to attend during Super Week to strengthen their instructional leadership throughout the year.

Teachers are paid their district's hourly rate to attend both Super Week and the SMI, signaling how important district leaders think this learning is for their staff and also how they respect their time. Math in Common grant funding has been very helpful in this regard, providing funding for the first two weeks of the SMI. After MiC funding is discontinued, these activities will continue to be funded as they were in years prior to receiving the grant.

with the intensive support, through coaching and makeup training, needed to get someone up to speed.

Summer Math Institute. Garden Grove's Summer Math Institute (SMI) is a teacher professional learning event that leverages the district's summer school offerings to create authentic staff learning opportunities, refocusing a program that had once offered traditional student

⁵ The Discourse Collaborative (DC) is a group of teachers who volunteer to continue receiving professional development on the topic of peer-to-peer academic discourse throughout the school year in a variety of opportunities (e.g., after-school PD, in-class support, vertical level classroom visits). DC teachers receive teacher hourly rate for attending PD outside of their contracted day. DC teachers also agree to allow their classrooms to be used for data collection utilizing the district's Peer-to-Peer Discourse Observation Tool.

Planning and Follow-up Throughout the Year

"We don't drop that ball...you're constantly learning and growing and taking on new initiatives, but it's always revisited, it's never dropped. It's routine, it's clear expectations for teachers and for implementation." – District TOSA

Thoughtful planning. District TOSAs partner with IMP staff to facilitate most of the math learning opportunities, but other expertise from inside and outside of the district is also tapped to support teacher learning in some specialty areas. For example, Bill Saunders and Dave Marcelletti from the Talking Teaching Network are asked to provide K–6 ILT facilitator training and the district's K–12 Instructional Technology team provides specialty training on technology.

TOSAs begin planning for the summer learning experiences in early spring. Their planning is informed by teacher input (from annual surveys, focus groups, and more informal discussions) during the school year about what to expand or review. For example, the Discourse Collaborative, started as a pilot study during the SMI, serves an important idea-incubation function. District staff are able to use the learning and input of this small team of teachers to guide decisions about what professional development will be offered at both SMI and Super Week the following year. In this way, the most important learning from the collaborative eventually reaches all teachers. TOSAs also take into account "things we don't see being implemented consistently" while planning, and conduct teacher surveys and focus groups throughout the year to better gauge teachers' needs. The professional learning content year over year is not static, but informed by actual classroom implementation experiences.

Expectations of ongoing application and support. We were told that Garden Grove's teacher culture pushes teachers to implement the curriculum and to expect their peers to do the same. Teachers expect that peers and instructional leaders (including both principals and

TOSAs) will support them in implementing the strategies they learned during Super Week. Because they attend sessions themselves, instructional leaders are well positioned to understand what issues teachers may have and to reinforce the learning throughout the year. In their frequent visits to classrooms, instructional leaders are looking for how teachers are using ideas they learned from the district's professional development in their instruction. For example, both principals and TOSAs reported seeing 2016 SMI strategies implemented by a majority of the attending teachers throughout the year.

Collaborative learning throughout the year. There are additional types of collaborative opportunities organized for staff throughout the school year, such as gradelevel lesson study events and instructional leadership teams. These learning activities seem to be a particularly powerful way for the district to maintain learning momentum and communication across different levels of the system and help leaders understand how summer professional learning strategies "land" in the classroom.

For example, instructional leadership teams (ILTs) at each site comprise the principal, the TOSA, and one teacher leader from each grade who meet monthly. ILTs select a focus each year (many chose math in 2015-16 and ELA in 2016-17 to support the newly adopted programs) on which to conduct a collaborative Plan-Do-Analyze-Reflect (PDAR) process related to the district's pacing guide (Saunders & Marcelletti, 2014). We were told that even while a new ELA curriculum was being adopted in 2016–17, the ILT structure is what keeps math instructional improvement work "alive" at school sites. Building on training during Super Week and using dedicated Wednesday collaboration time, ILT teacher leaders facilitate work with their grade-level peers to review the math standards. At the beginning of the year, they utilize the pacing guide to create trimester plans that make sense for their site and each grade. Because the district's pacing guide is taken up with significant uniformity across classrooms, teachers can choose to do a PDAR cycle on a common lesson, knowing that by their next Wednesday meeting, everyone will have had a chance to try it. This gives both the teachers and the ILT common

ILTs Support Learning and Leadership Across the System

Instructional leadership teams (ILTs) are critical to the year-round collaborative learning that takes place in Garden Grove for teachers and administrators. In this text box, we describe some of the key features of the ILTs.

- 1. A focus on instruction for all. As part of their ILT work, principals plan and teach lessons. Principals tell us that the ongoing support from the ILTs helps them to integrate and build learning better than one-off or occasional professional development would: "[The learning] is not all at once, it's a steady, thoughtful process. It's well thought-out and in increments. So when it comes to the time that 'Now we're teaching it,' it was natural for our teachers." One former principal said the experience of teaching conceptual lessons helped him develop a richer understanding of the district's instructional goals for teachers, strengthened his work as an instructional leader, and, "Helped me to have some validity in my conversations with teachers."
- 2. Dedicated learning time. ILT meetings occur twice monthly and consist of one two-hour meeting for the principals and TOSAs at the district office, and another half-day meeting with the teacher leads at a site. The dates of these are announced at the beginning of the year and substitutes are scheduled in advance, ensuring that everyone on-site can participate. These meetings are not rescheduled, cancelled, or pre-empted. For principals, especially — who are pulled between the conflicting managerial and instructional demands of their jobs — ILT offers guaranteed time to focus on instruction.

"The work we do through ILT gives us designated time to do that work," one principal told us. "Once

we get back to the sites...we could be firefighting. The designated time that's scheduled [off the site] is not cancelled. It's for us to learn and to work."

3. Shared leadership for instructional improvement. District staff tell us that teachers have established among themselves that everyone should get a turn at the rotating teacher lead positions within the ILT. Even when the teacher selected for ILT that year is not the strongest or most committed, one TOSA told us that the role "brings out the best in someone." In general, the district reports having a dispersed view of instructional leadership in mathematics, with structures like ILT helping to train teachers to serve as instructional leaders along with TOSAs and principals.

"[Instructional leadership] gets muddy...the principal is an instructional leader, the TOSA[s] are instructional leaders, then the principal and TOSAs are trying to build teachers' capacity so there are on-site instructional leaders," said one TOSA.

4. Mutual support. The cross-role structure of the ILT supports strong connections between principals, TOSAs, and teacher leaders. The group's commitment to teaching classes at every level helps teachers to see principals and TOSAs as colleagues who are working to improve at Common Corealigned teaching along with them. Principals and TOSAs are able to be vulnerable, positioning themselves as learners, and this builds trust as well as skills. A TOSA told us that because of the quality of relationships and collaboration fostered in the ILT, she was invited to co-plan more lessons with her principals beyond what is required by the ILT.

areas of study during a PDAR cycle. (See the text box labeled "ILTs support learning and leadership across the system" for more information about the ILT structure.)

Classroom focus for all staff. It is not only teaching staff who think about the district's curriculum, unit pacing, and classroom instruction. Individuals in very different system roles are also expected to think about how classroom instruction supports – or does not support - student learning. For example, principals commented on their own opportunities to attend professional development alongside teachers and to review and even teach IMP lessons themselves so "we know what to expect." One principal reported that administrators planning and teaching lessons enables teachers to see that their administrators are working with them as "lead learners." He added, teachers are "better at it than we are." The principal described the vulnerability of teaching a Common Core-aligned lesson for his own professional development that didn't go very well; he then had a discussion with a teacher about what could have gone better: "It's that reflection piece that...we're doing in front of [the teacher]. [I'm saying] 'Oh, I could have done this.' We're asking [teachers' opinions on our instruction], involving them." A district administrator added, "It takes off the table what we heard in the very beginning [of CCSS-M implementation]: 'Will my principal know that when they walk in, this [kind of teaching] is okay?' Yes, your principal does know. They've done it." These opportunities to have conversations across roles about the curriculum and pacing enable a shared understanding of "what [the CCSS-M] looks like."

Outside of the planning and teaching role, principals also reported spending time in classrooms observing instruction. Although there was variability in the extent to which principals reported being able to observe instruction, one principal said, "Ideally, it's 3–4 times in every classroom per week. On good weeks, that does happen." Principals are not the only central office staff seeking classroom time to understand "what it looks like." A math TOSA commented, "My first year teaching, I had our now-Superintendent — who was Director of Instruction at the time — in my room on *the fourth day* of school. And I... thought, 'What are you doing? You're too busy to be in my room!' And it was like, welcome to Garden Grove, you're going to have administrators and district personnel in your room on a regular basis. Just get used to it and expect it." We heard that everyone, from the Superintendent and Assistant Superintendents on down through the system, makes being in classrooms a priority in their work. TOSAs reported that, for teachers, rather than feeling like the classroom observations are a "gotcha" moment, they are more likely to feel "that the office cares about me; they want me to grow."

Questions to Consider

The following are questions for educators and administrators to consider in the context of their own districts' CCSS-M implementation efforts:

- » How reliable is your district's professional development calendar?
- » What sources of motivation drive staff participation in your district's professional learning opportunities?
- » How does your district monitor the participation of *all* teachers' learning opportunities as well as opportunities each teacher has to learn about the district's central content and instructional focus areas? What support is provided for teachers who do not have or take advantage of those opportunities? What follow-up is provided even for teachers who do have those opportunities?
- » How does your district monitor the *impact on instruction* of the professional learning opportunities provided?
- » To what extent do professional learning opportunities enable cross-role learning?
- » How often are principals and site coaches in your district: (1) in the classroom; (2) observing instruction; (3) teaching in front of others?



Closing Thoughts

Garden Grove's culture of continuous learning and improvement was not built overnight. In fact, many of their institutions and ideas date back to a previous superintendent's 14-year tenure. District staff continue to build on that superintendent's ideas and add related new initiatives under the guidance of the current superintendent who "grew up" in the district system.

While many of the initiatives described throughout this paper are longstanding efforts, there are elements of how the district operates that any district or site administrator can begin putting into place today. The "Questions to Consider," located at the end of each of the three main sections of the paper, are intended to prompt reflection about some of these elements and how your district addresses curriculum and pacing, TOSAs, and professional learning.

In closing, we've gathered the following list of lessons learned and promising practices based on Garden Grove's efforts: These lessons learned are intended to help educators and administrators reflect on potential refinements and new strategies to implement in their own districts.

- » Individuals across many staff roles in Garden Grove highlighted the consistent messaging of the district vision for teaching and learning over time.
 - Clarify your district's priorities and expectations related to teacher professional learning.
 - Be sure to communicate those priorities and expectations clearly and consistently from year to year.
 - Take an empathetic, user-centered perspective to understand how individuals across your system are interpreting your messaging.
 - Ensure that principals understand the central messages sufficiently to share and support the learning again with their teachers.
- » Pilot-testing new ideas with small groups enables Garden Grove educators to learn about how an idea works in relation to existing systems and structures.

- Consider how any new ideas relate to central vision that is, will they add to or detract from the district's central ideas?
- When a new idea is deemed useful for educators in the district, consider starting with a closely monitored pilot test to nurture the idea and learn from it before spreading it broadly.
- » "Take a second, make a difference" is an unofficial motto in Garden Grove, which demonstrably permeates individual choices throughout the day, week, and year.
 - Consider how your district administrative team can demonstrate a "customer service" approach to working with teachers and principals to help prioritize teaching and learning.
 - Consider how your district provides consistent follow-up to support teacher professional development.
- » Garden Grove educators vocalize their actions from a learning stance.
 - Enabling all of your district staff to think of and describe themselves as learners may require developing new structures for site and district administrators to position themselves as learners alongside teachers. It may also require a careful review of district policies or structures that might get in the way of such collaborative learning.

While consistency is central to the success of Garden Grove, we hope the details about the district's work provided in this paper will prove useful in helping readers to identify some starting points for improvement efforts in their own contexts.

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Appendix A: School Performance on the 2016 CAASPP Assessment

Drawing on two years of data from the California Assessment of Student Performance and Progress (CAASPP)⁶ in mathematics, the WestEd analytic team conducted a unique statistical analysis for each Math in Common (MIC) partner district to examine how each school performed over two years, using all schools of the same grade range (e.g., elementary or middle) in California as reference. Our analysis examined how 2016 CAASPP performance in math aligned with the predicted change based on 2015 CAASPP math data and the following school-level characteristics:

- » Percentage of students who were eligible for the free or reduced lunch program
- » Percentage of English language learners
- » Percentage of four ethnic groups: Asian, Hispanic, African American, and White
- » Percentage of students with disabilities

For the graphical display, within each district, schools included in the regression analysis were ordered on the basis of 2015 CAASPP performance (with schools with the highest percentage of students meeting or exceeding standards in 2015 at the top of the chart to schools with the lowest percentage at the bottom of the chart). Information presented for each school includes:

- » Percentage of students meeting or exceeding standard in 2015
- » Expected percentage change (+ or -, as determined by the regression coefficient) for percentage of students meeting or exceeding the standard in 2016 as compared to 2015

» Actual 2016 percentage of students meeting or exceeding the standard beyond or below the predicted value

Additional information about the methodology of this analysis is available upon request.

Garden Grove performance on the CAASPP

Following the analytic method described briefly above, Figures A1 and A2 show data on how Garden Grove's elementary and intermediate schools, respectively, performed on the CAASPP in mathematics. Each line in Figures A1 and A2 represents a separate school. While the figures contain a large amount of data and may be somewhat difficult to read, we include them here both to show what the data from our analyses look like and to convey the overall positive findings from the Garden Grove schools that created such curiosity among the Math in Common partners.

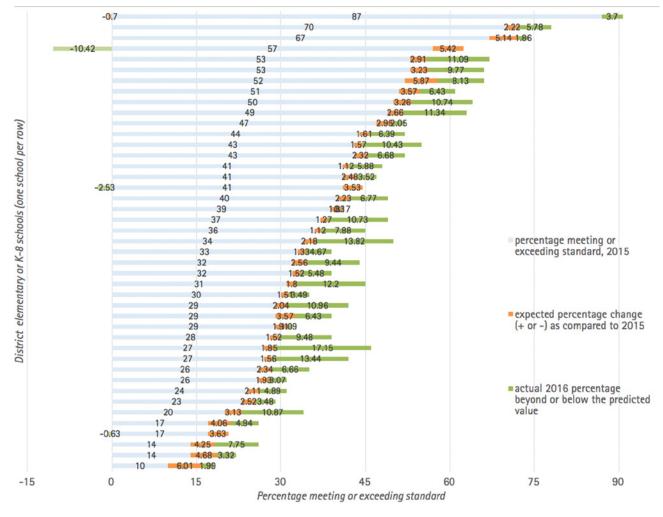
Figure A1 shows that for the first school, 87 percent of students met or exceeded the standard in 2015 (the 87 percent is shown in light blue on the very top line of the chart). For this school, our model predicts that the percentage of students meeting or exceeding standard in 2016 would decrease by 0.7 percentage points (represented by "-0.7" shown in light orange to the left of the light blue band). However, this school actually performed better than predicted by 3.70 percentage points (shown by the dark green band to the right of the light blue band).

For the second school, the percentage of students meeting or exceeding standard in 2015 is 70 (light blue). The model predicted that the percentage of students meeting or exceeding standard in that school in 2016 would

⁶ The California Assessment of Student Performance and Progress is the official name for the state's implementation of the Smarter Balanced Assessment system.



Figure A1. Performance on the California Assessment of Student Performance and Progress in Mathematics for Elementary Schools in Garden Grove (2015, 2016)



Note: The figure represents how each school's 2016 CAASPP performance aligns with that school's predicted change (which was calculated using 2015 CAASPP data and other school-level characteristics). Each row represents a separate school.

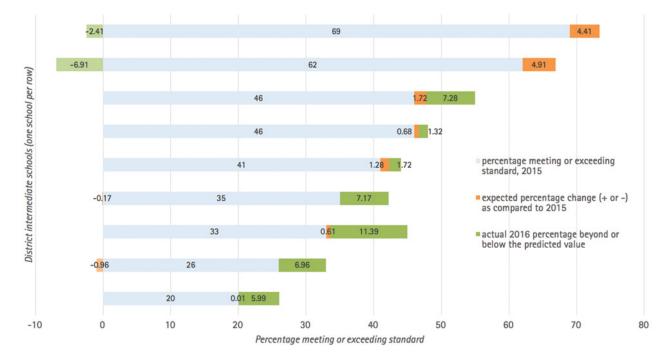
increase by 2.22 percentage points (dark orange). The school actually performed 5.78 percentage points better than expected (dark green).

For the fourth school, the percentage of students meeting or exceeding standard in 2015 is 57 (light blue). The model predicted that the percentage of students meeting or exceeding standard in 2016 would increase by 5.42 percentage points (dark orange). However, the school performed 10.42 percentage points less well than expected (represented by "-10.42" in light green).

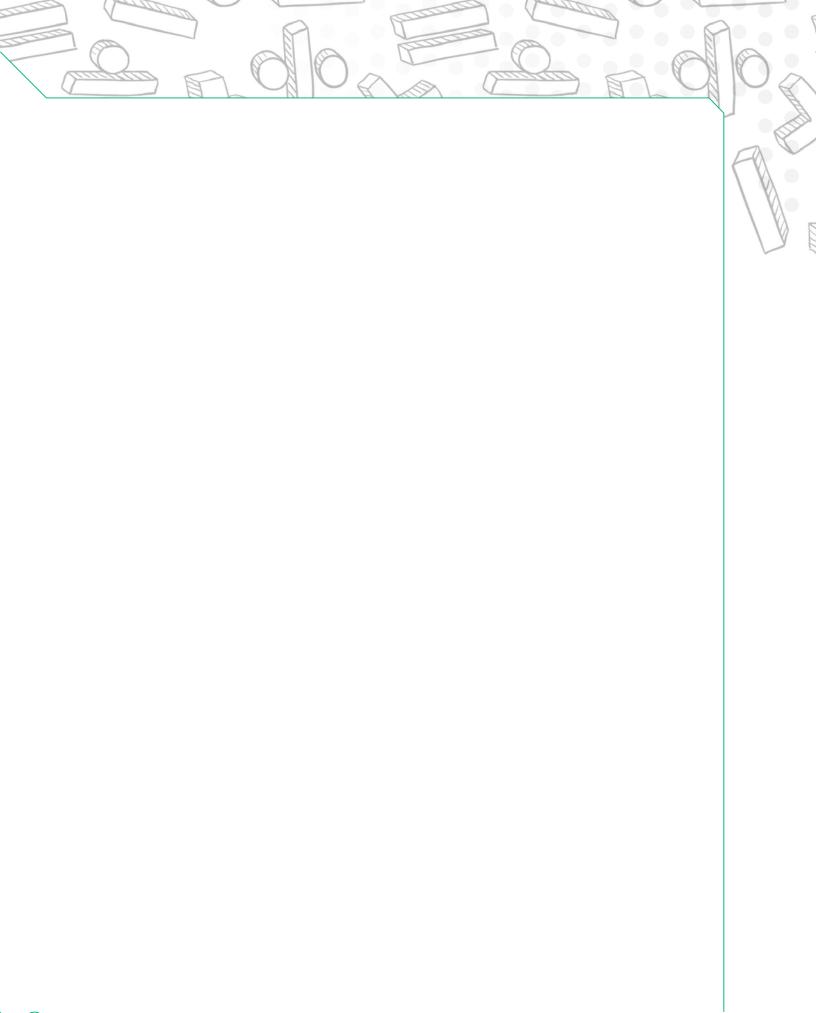
All MiC districts were each given their own results separately for elementary and middle schools. The February 2017 Math in Common meeting agenda included opportunities to share and discuss the results across districts, as well as share hypotheses about district programs, policies, and practices that may have influenced outcomes.



Figure A2. Performance on the California Assessment of Student Performance and Progress in Mathematics for Intermediate Schools in Garden Grove (2015, 2016)



Note: The figure represents how each school's 2016 CAASPP performance aligns with that school's predicted change (which was calculated using 2015 CAASPP data and other school-level characteristics). Each row represents a separate school.



Appendix B. Interview Protocols

Interviews volunteers were recruited by the Garden Grove's Director of K–8 Math (our Math in Common project liaison), who organized five one-hour meetings with 18 staff members over a two-day period in February 2017.

In the five meetings, we talked with six site principals, one assistant principal, four site-support K–6 TOSAs, and four members of the K–8 Math Team. We also met with the Assistant Superintendent of Elementary Education, the Director of K–6 Instruction, and the Director of K–12 Educational Services. An interview with the former district Superintendent occurred later via telephone.

Interview Protocols

District Administrators

I. Interviewer Introduction (WestEd, Math in Common (K-8 focus), Role in Project) and Purpose

We are in our fourth year of the work with Garden Grove and are gathering data this year to help us better understand implementation strengths and challenges by talking with more people in the district. We want to understand the broader context for reform in the district as well as ask more specifically about district supports for improvements in math. An analysis that we did earlier this year suggested to us that there might be an interesting implementation story about math education in Garden Grove, so we'd like to see if we can understand the story.

II. Interviewee Background

- Can you each introduce yourself briefly, and tell us your primary responsibilities in your current role [particularly with respect to supporting student achievement in mathematics]?
- III. District Strategies for Supporting Student Achievement

- 2. In your opinion, what are the most important policy structures in place to support sustained attention on Common Core Standards implementation and K-8 student achievement?
 - a. Probe: Probe separately for math and differences with other subjects like ELA, science, and ELD.
 - **b.** Probe: Why these strategies? What evidence or reasoning are you drawing on?
 - c. Probe: Have strategies changed since the CCSS became available in 2010? How, when, why?
 - d. Probe: Can you talk about elementary and middle school differences? How is implementation supported differently at these levels?
 - e. Probe: How are these strategies implemented similarly or differently to support struggling learners, EL students, and students with disabilities? What additional strategies are in place? [Probe separately for each group.]
- 3. Can we ask about resource allocation? Districts receive significant funding to support their work, and with that comes the need to balance the resources and the strategies that are put in place to support student achievement. How does the district make these decisions; what beliefs or philosophies drive the resource allocation to support student learning? In what way does the Math in Common grant make a difference for how the district organizes its work in support of Common Core?

IV. District and School Math Performance

- 4. What are your thoughts on Garden Grove's student SBAC performance in mathematics over the last two years? How about before that, under the CST?
- **5.** [Describe and show outlier analysis.] The majority of schools outperformed the predictions, which is not what we saw in the other 9 districts. What do you make of that? What, if anything, is surprising to you or consistent with your expectations?



Probe: Based on what you see here, do you have any additional thoughts on policies/ practices/ programs that may have contributed to these results?

Thank you for your time today. If you have any further thoughts about what we discussed today or have questions for our team, please feel free to give us a call.

Site-Support K-6 TOSAs

I. Interviewer Introduction (WestEd, Math in Common (K-8 focus), Role in Project) and Purpose

We are in our fourth year of the work with Garden Grove and are gathering data this year to help us better understand implementation strengths and challenges by talking with more people in the district. We want to understand the broader context for reform in the district as well as ask more specifically about district supports for improvements in math. An analysis that we did earlier this year, which I'll show you later (if you haven't already seen it) suggested to us that there might be an interesting implementation story about math education in Garden Grove, so we'd like to see if we can understand the story.

I. Interviewee Background

1. You all are TOSAs that support different school sites. What do you do at your sites in your TOSA role with respect to supporting student achievement? [*Probe specifically for mathematics.*]

II. District Strategies for Supporting Student Achievement

- 2. In your opinion, what are the most important strategies (i.e., programs, policies, practices) the district is using to support sustained attention on Common Core Standards implementation and student achievement for K-8 students?
 - a. Probe: Probe separately for math and differences with other subjects like ELA, science, and ELD.

- **b.** Probe: Why these strategies? What evidence or reasoning are you drawing on?
- c. Probe: Have strategies changed since the CCSS became available in 2010? How, when, why?
- 3. How are these strategies implemented similarly or differently to support struggling learners, EL students, and students with disabilities? What additional strategies are in place? [*Probe separately for each group.*]
- 4. Let's talk about school differences. Describe how school authority and decision-making relates to these district programs/ policies/ practices. What kinds of things might look the same or different across different schools? How do principals or other site leaders identify and act on their improvement goals?
- 5. How do you, in your TOSA role, "bring principals along" if they are skeptical; how do you support them to be instructional leaders that are able to support teachers and instruction?

III. District and School Math Performance

- 6. What are your thoughts on Garden Grove's student SBAC performance in mathematics over the last two years? How about before that, under the CST?
- 7. [Describe and show outlier analysis.] The majority of schools outperformed the predictions, which is not what we saw in the other 9 districts. What do you make of that? What, if anything, is surprising to you or consistent with your expectations?
 - a. Probe: Based on what you see here, do you have any additional thoughts on policies/ practices/ programs that may have contributed to these results?

Thank you for your time today. If you have any further thoughts about what we discussed today or have questions for our team, please feel free to give us a call.

District TOSAs

I. Interviewer Introduction (WestEd, Math in Common (K-8 focus), Role in Project) and Purpose

We are in our fourth year of the work with Garden Grove and are gathering data this year to help us better understand implementation strengths and challenges by talking with more people in the district. We want to understand the broader context for reform in the district as well as ask more specifically about district supports for improvements in math. An analysis that we did earlier this year, which I'll show you later (if you haven't already seen it) suggested to us that there might be an interesting implementation story about math education in Garden Grove, so we'd like to see if we can understand the story.

II. Interviewee Background

1. Tell us what you each do in your TOSA roles — what are your primary responsibilities with respect to supporting student math achievement?

III. Strategies for Supporting Student Achievement

- 2. At the opt-in and convening, we asked you to think about the most important strategies (i.e., programs, policies, practices) the district is using to support sustained attention on Common Core Standards implementation and student achievement for K-8 students? What did you all come up with as explanatory factors?
 - a. Probe: Why these strategies? What evidence or reasoning are you drawing on?
 - **b.** Probe: *Have strategies changed since the CCSS became available in 2010? How, when, why?*
 - c. Probe: Think beyond mathematics for a moment. What are cross-subject or general policies or practices that might explain the school profile we saw?
- 3. How are these strategies implemented similarly or differently to support struggling learners, EL students, and students with disabilities? What

additional strategies are in place? [*Probe separately for each group*.]

- 4. How might district policies/ practices/ programs look the same or different across different schools?
- 5. [If this doesn't arise earlier, ask] One strategy that is clear to us is that the district invests heavily in its TOSAs to support teachers' instruction.
 - a. Has this always been the case? If not, what was the rationale for moving to this model?
 - **b.** How do you think coaching affects student performance?
 - c. How do you document that impact?
 - **d.** Where do you learn what you need to learn to support implementation?
- 6. How do you, in your TOSA role, "bring principals along" if they are skeptical; how do you support them to be instructional leaders that are able to support teachers and instruction?

Thank you for your time today. If you have any further thoughts about what we discussed today or have questions for our team, please feel free to give us a call.

Site Administrators

I. Interviewer Introduction (WestEd, Math in Common (K-8 focus), Role in Project) and Purpose

We are in our fourth year of the work with Garden Grove and are gathering data this year to help us better understand implementation strengths and challenges by talking with more people in the district. We want to understand the broader context for reform in the district as well as ask more specifically about district supports for improvements in math. An analysis that we did earlier this year, suggested to us that there might be an interesting implementation story about math education in Garden Grove, so we'd like to see if we can understand the story.

II. Interviewee Background

- You all are administrators at different school sites. For how long have you been a principal? Under the Common Core, the role of the principal has become increasingly focused on instructional leadership. How do you operationalize that idea of instructional leadership at your site to support Common Core implementation and student mathematics achievement?
- How does the district provide support for your instructional leadership around Common Core math
 what has been particularly helpful for you?
- **3.** How do you as an instructional leader identify and act on your school improvement goals?
- III. District Strategies for Supporting Student Achievement
 - 4. In your opinion, what are the most important strategies (i.e., programs, policies, practices) <u>the district</u> is using to support sustained attention on Common Core Standards implementation and student achievement for K-8 students?
 - a. Probe: Probe separately for math and differences with other subjects like ELA, science, and ELD.
 - **b.** Probe: Why these strategies? What evidence or reasoning are you drawing on?

- c. Probe: Have strategies changed since the CCSS became available in 2010? How, when, why?
- 5. What about at your school? What are the most important strategies (i.e., programs, policies, practices) <u>your school</u> is using to support student achievement for K-8 students?
 - a. [Same probes as for district.]
 - **b.** Probe: Were there any particular policies/programs/ practices that you tried at your school and discontinued? Why?

IV. District and School Math Performance

- 6. [Describe and show outlier analysis.] The majority of schools outperformed the predictions, which is not what we saw in the other 9 districts. What do you make of that? What, if anything, is surprising to you or consistent with your expectations?
 - a. Probe: Based on what you see here, do you have any additional thoughts on policies/ practices/ programs that may have contributed to these results?

Thank you for your time today. If you have any further thoughts about what we discussed today or have questions for our team, please feel free to give us a call.