CORE’s Journey into the world of continuous improvement

For the California Collaborative

June 23, 2017
The CORE Improvement Community is an outgrowth of CORE’s unwavering belief in equity and access for all students – a belief that drives all of our work. Improvement science lets us view our systems as a whole, identify the disparities that need to be resolved, and determine the root causes of those failures.

<table>
<thead>
<tr>
<th>1.0: Building relationships (2010 to 2013)</th>
<th>2.0: Building the infrastructure (2013 to 2016)</th>
<th>3.0: Building networked improvement communities (2017+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Best practices and learnings shared across districts</td>
<td>- Participation driven by the CORE waiver</td>
<td>- Participation based on district priorities and the value the network provides</td>
</tr>
<tr>
<td>- Strong focus on learning about CCSS</td>
<td>- Network-wide goals focused on implementation</td>
<td>- Specific, measurable, and more unified aims for the districts</td>
</tr>
<tr>
<td></td>
<td>- Broad improvement agenda</td>
<td>- Focus on solving specific problems through improvement science</td>
</tr>
<tr>
<td></td>
<td>- Primary focus on role-alike collaboration</td>
<td>- Shared responsibility to help each other go further, faster</td>
</tr>
<tr>
<td></td>
<td>- First efforts in collaborating on continuous improvement via our school pairing and community of practice programs</td>
<td>- Focus on cross-functional problem solving, with some continued role-alike collaboration</td>
</tr>
</tbody>
</table>

Aspects of CORE that will remain the same:
- Focus on equity and access
- The development of relationships to solve problems
- Relentless pursuit of improved outcomes for students
School Interventions and Supports in CORE Waiver

<table>
<thead>
<tr>
<th>School Pairing</th>
<th>Approach</th>
</tr>
</thead>
</table>
| Lowest performing schools (bottom 5%) paired with demographically similar schools that are having greater success | • Identify a topic of common interest  
                               • Engage in peer learning and improvement |

<table>
<thead>
<tr>
<th>Communities of Practice</th>
<th>Approach</th>
</tr>
</thead>
</table>
| Schools struggling with a particular student group in ELA and/or math organized into groups of two to four schools teams | • Identify problem(s) of practice  
                               • Engage in Plan-Do-Study-Act Cycles |

Anecdotally, communities of practice had stronger “take up,” given the clearer structure to the improvement process. As one district leader put it,

*Three of our [regions] are having all of their schools, regardless of whether or not they’re identified [for pairing or communities of practice], identify a problem of practice this year, and really folding that into the regular work they’re doing. Which folds nicely into [our district’s approach to school planning]. That’s the whole idea of it. It helps us align ourselves and make more robust an existing structure. It’s really pushing us to do that work a lot deeper.*
With our learnings from CORE 2.0, our strong relationships and our infrastructure, in summer and early fall 2016, we collaborated to identify a problem space and a high level structure for CORE 3.0.

<table>
<thead>
<tr>
<th>Activity</th>
<th>August</th>
<th>September</th>
<th>October</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial meeting to identify potential problems to focus on</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>District visits to engage district leadership and further specify problems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bring district teams together to prioritize problems and gain a better understanding of the design of CORE 3.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final decision by the board on what problems to focus on, and how the work will be structured</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kickoff of CORE 3.0</td>
<td></td>
<td></td>
<td>Oct. 26</td>
</tr>
</tbody>
</table>

We also decided to take a pause on launching CORE 3.0 until we could bring on greater capacity in the area of Improvement Science.
During design day, districts surfaced several potential drivers of that can be addressed to improve math outcomes for African American and Hispanic/Latino students. Below are a few examples.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Potential drivers</th>
</tr>
</thead>
</table>
| Improve math proficiency of African-American and Hispanic/Latino students, especially grades 4-8 | • Integrating **social emotional learning** into math instruction  
  • Improving the **quality of teaching** in math  
  • Aligning **curriculum** with **assessments**  
  • Improving the **human capital pipeline** in math |
We started by looking at math performance. Taken together, growth and achievement give us a more complete picture of the variation in school performance (1 of 2).

Our challenge and opportunity is to move all schools to high achieving and high growth, especially with respect to our historically undeforming students.

We can learn from high growth schools about what it takes and we can lean in more heavily with our low growth schools.
Taken together, growth and achievement give us a more complete picture of the variation in school performance (2 of 2).

Notice the wide range in school performance with African-American Youth.
The CORE Districts Can Close the Achievement Gap In…

2 YEARS
If African American and Latino students exceed average growth and improve at the 90th percentile.

3-4 YEARS
If African American and Latino students exceed average growth and improve at the 75th percentile.

7-8 YEARS
If CORE’s African American and Latino students attend the highest growth schools today, the typical student is growing at the 65th percentile.

Average Academic Growth
If CORE’s African American and Latino students continue to grow at a slower pace than their white peers, the gaps will only widen.
OUR CIC Aim

Between SY16 and SY20, we will see the following in Grade 4 to 8 math across the CORE Districts

African American students and Hispanic/Latino students will improve by 44 scale score points. The gaps between African American and White, and Hispanic/Latino students and white students will close by 20 points.

*We utilized recently released LCAP dashboard data for grades 3 to 8. We will update the data to reflect grades 4 to 8 only.

At the 2020 rate of gap closure, the African-American gap would be closed by 2028 and the Hispanic-Latino gap would be closed by 2026.
Our first step as a community was to open the black boxes of our systems to gain insights that will help us reach our aim.

Being a Systems Detective

- Go and see
- User Interviews
- Data
With CORE-wide and district-specific analytics, and with data from teacher and student interviews, we have updated our hypotheses about the causes of our math gaps (1 of 2).

<table>
<thead>
<tr>
<th>Cause Category</th>
<th>Hypothesized Secondary Cause</th>
</tr>
</thead>
</table>
| **Self-perception and mindset**       | • Repeated low achievement fosters low self-efficacy to improve in math  
• Teachers don’t know how to foster a healthy growth mindset  
• Limited growth mindset among students prevents ownership of learning  
• SEL is not embedded in learning math  
• Particular challenges for students at the transition from elementary to middle school                                                                                         |
| **Human capital challenges**          | • Difficult to hire, select, recruit, and retain quality math teachers—high turnover  
• Differential sorting of high quality teachers out of high needs schools                                                                                                     |
| **Teacher learning support**          | • Few supports to foster teacher collaboration  
• Limited opportunities for about effective math professional development  
• Limited professional development in cultural competence                                                                                                                    |
| **Knowledge and skill of teachers and leaders** | • Teachers have limited preparation in pedagogical and math content knowledge  
• Teachers can have fixed mindsets about math  
• Limited skills of leaders stagnates skill development of teachers  
• Limited awareness about teacher supports (collaboration time, PD opportunities, etc.)                                                                                       |
| **Limited instructional time**        | • Competing subject priorities leads to insufficient time for math instruction  
• Suspensions, SpEd classifications, and absenteeism disproportionately decrease math instructional time for Black and Latino students  
• Limited supports to English learners in math                                                                                                                                   |
With CORE-wide and district-specific analytics, and with data from teacher and student interviews, we have updated our hypotheses about the causes of our math gaps (2 of 2).

<table>
<thead>
<tr>
<th>Cause Category</th>
<th>Hypothesized Secondary Cause</th>
</tr>
</thead>
</table>
| Implicit and explicit bias among teachers           | • Teacher perception of students’ ability to do the work (e.g., gender, low-income)  
• Implicit and explicit bias about what students can accomplish in math  
• Teacher-student relationships  
• Unconscious biases can lead to low expectations of students’ abilities to learn math, particularly among Black and Latino students |
| Curricular limitations                              | • Availability of tools and resources and knowledge on how to effectively use them in a culturally responsive way that’s aligned to standards (e.g., instructional shifts)  
• Access to high-quality resources  
• Curation of instructional material; resources may be available, but teachers don’t know how to access and use them effectively  
• District guidance (scope and sequence) and expectations  
• Doesn’t allow instruction to be sufficiently differentiated to needs of students  
• Not aligned to measures of student achievement or culturally responsive |
| Home/life challenges of students                    | • Food, financial, and housing insecurities, especially experienced among Black and Latino students  
• Many parents don’t have the skills or knowledge of how to help students |
Our next period in summer and fall 2017 will build from these insights as district teams initiate a small number of local action teams run PDSA cycles.

Our learning objectives in Summer/Fall 2017 are twofold:

- We are learning about the problem, how our local systems contribute to those problems, and what makes for a solid theory of improvement for the performance gaps we face in math.
- We are learning about improvement itself.

<table>
<thead>
<tr>
<th>Project</th>
<th>Role of CIC Hub</th>
<th>Role of District Improvement Team Members</th>
<th>Role of Local Action Teams</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Expert Scan Project</strong></td>
<td>The CIC hub will lead the Expert Scan Project.</td>
<td>A subset of district team members will participate in this project. There will be both an overarching team this project, as well as a sub-team for each driver.</td>
<td>Site level action teams will be updated about the learnings by their District Improvement Team leads.</td>
</tr>
<tr>
<td>With the CORE Improvement Community Driver Diagram 1.0 as the base, we will engage research and practitioner experts for two purposes: 1. Test our theories of improvement. 2. Explore possible change ideas for improvement.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Local Improvement Projects</strong></td>
<td>The CIC hub will provide support in the form of coaching, facilitation, analytics, tools/templates, and the like.</td>
<td>District improvement teams will identify and onboard local action teams, and either lead or co-facilitate the work of local action teams.</td>
<td>Local action teams will plan and engage fully in the local improvement projects.</td>
</tr>
<tr>
<td>Each district will initiate an improvement project where they will engage in rapid testing cycles around a particular (set of) change idea(s).</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

We are encouraging teams to focus on “micro-changes” in our first set of improvement cycles because it supports our learning objectives. Change ideas and tests can certainly be larger in scope.