Section 1: Design Thinking, A New Leadership Tool for Change

Policy change always looks different from the perspective of local implementers than it does to the architects of the policy. While policymakers are busy mapping new territory and advocates are helping to define both goals and milestones on the journey, implementers are at the steering wheel, navigating their particular organization along a new road. Local leaders, including superintendents, district office staff, principals and teachers, must make a myriad of choices along the way.

The Common Core provides districts an opportunity to renew their focus on teaching and learning. But it also poses a number of design and implementation challenges for school districts, including how to:

- Build the capacity of teachers to equitably implement student-centered instructional strategies.
- Address gaps in curriculum in ways that foster creativity, address the local culture, scaffold achievement for diverse learners and increase motivation for teachers.
- Design formative and interim assessments that promote a new vision for 21st Century teaching and learning.
- Leverage technology to promote deeper and more personalized learning.
- Structure implementation activities in ways that reach every teacher, every classroom and every student.
- Engage and motivate site administrators, teachers and family and community members.

The Leadership and Design Cycles described in this guidebook offer an evidence-based and structured process for leaders to design and implement Common Core change initiatives in ways that promote innovation, build reciprocal accountability, and effectively address both the technical and human dimensions of change. Infusing “design thinking” into the change process allows leaders to share responsibility for tactics, while ensuring that what gets designed and implemented meets a locally defined vision and core strategy for 21st Century teaching and learning. It also is an essential tool for engaging a wide range of stakeholders.

The report also explores the essential questions or “design choices” that leaders must address to effectively navigate their districts through a complex and comprehensive journey. This includes essential change management practices, such as: (i) connecting the initiative to a broader vision for improved teaching and learning; (ii) managing the pace of change by narrowing focus; (iii) increasing site/classroom autonomy, while providing enhanced support; (iv) engaging teachers and site administrators in the design process; (v) building or repurposing feedback loops and refining strategies and tactics accordingly; (vi) increasing leadership development opportunities for site administrators; (vii) coupling bottom up change strategies with clear expectations and accountability; and (viii) informing, engaging and involving parent and community members.

EXECUTIVE SUMMARY

The Common Core provides districts an opportunity to renew their focus on teaching and learning. But it also poses a number of design and implementation challenges for school districts, including how to:

- Build the capacity of teachers to equitably implement student-centered instructional strategies.
- Address gaps in curriculum in ways that foster creativity, address the local culture, scaffold achievement for diverse learners and increase motivation for teachers.
- Design formative and interim assessments that promote a new vision for 21st Century teaching and learning.
- Leverage technology to promote deeper and more personalized learning.
- Structure implementation activities in ways that reach every teacher, every classroom and every student.
- Engage and motivate site administrators, teachers and family and community members.

The Leadership and Design Cycles described in this guidebook offer an evidence-based and structured process for leaders to design and implement Common Core change initiatives in ways that promote innovation, build reciprocal accountability, and effectively address both the technical and human dimensions of change. Infusing “design thinking” into the change process allows leaders to share responsibility for tactics, while ensuring that what gets designed and implemented meets a locally defined vision and core strategy for 21st Century teaching and learning. It also is an essential tool for engaging a wide range of stakeholders.
In the case of the Common Core State Standards (CCSS), the territory they are navigating is substantially new. It is well understood that under No Child Left Behind (NCLB) teachers were expected to teach a scripted curriculum, but it is less often acknowledged that leaders as well were given a script. The leadership script for curriculum change under NCLB called for districts to adopt a curriculum, train teachers, put in place a pacing guide, and supervise teachers to stay on the pacing guide and teach the adopted curriculum with high fidelity. The work of teacher Professional Learning Communities (PLCs) focused on a close analysis of data from benchmark assessments to identify which students and which standards needed more attention. With the adoption of CCSS, California has given leaders permission to stray from the NCLB script and improvise. The simultaneous adoption of the Local Control Funding Formula (LCFF) has reinforced the idea of increased local autonomy, not only to make locally appropriate judgments about programs and services, but also to design change processes that build on local strengths and respond to local priorities.

There are good reasons to make this shift. Public education is facing pressure to innovate in response to rapid change in our society. Teachers are faced with the task of preparing students for a future no one can see clearly. Best practices, which were the focus of the NCLB years, are still relevant where they exist, but on a number of issues no best practice has yet been identified, and what is needed is something new. Moreover, districts have been pushed to think creatively by harsh circumstance. Most have begun their implementation of CCSS at a time when their organizational capacity has been diminished, their cultures frayed, and their resources constrained by years of budget cuts. These changes cannot be undone. Public education is entering an era where innovation and experimentation will be standard operating procedures, which requires leaders to think in new and very strategic ways about focus and starting places.

The good news is that successful innovation does not rely on luck or middle-of-the-night creativity. Many organizations have learned to foster innovation systematically through a variety of design processes that reflect the underlying discipline of design thinking. Relatively few school districts have explicitly embraced the formal process of design, but many are experimenting their way to an approach to change that reflects similar principles. Design thinking is a multi-purpose tool that can be used not only to create new systems and processes, but that can also help educators to address a deeper set of issues. Design processes teach empathy and tap into people’s energy and creativity to generate better ideas, while building trust, reconnecting schools with communities, capturing diverse perspectives and repairing frayed cultures.

Design thinking is:

1. **Inclusive:** It involves engaging a diverse set of stakeholders, capturing their voices and leveraging their insights. In this way, design processes support work on behalf of the goal of equity and structure the “bottom up” work that is an essential part of any change process.

2. **Optimistic:** By reframing problems as opportunities, design thinking can be a powerful change management tool to engage stakeholders in designing new tools, new solutions, and even helping to design the change process itself. In education organizations with staff who are feeling demoralized or with cultures characterized by a lack of trust, design work can re-engage people, rebuild trust and change cultures.

3. **Human Centered:** By emphasizing the idea of empathy as a way to understand the experience of the users of the system, design thinking can be a tool to help create more responsive school systems and to help focus district central offices more directly on customer service.

4. **Structured, Predictable and Manageable:** Because it’s a structured process, leaders can use design thinking to engage staff and stakeholders without feeling that they are losing control. Experience suggests that providing some structure for the creative process can actually help people to be more creative.

5. **Iterative:** By some estimates roughly 70 percent of change efforts are unsuccessful. The Design Cycle builds in the expectation that first efforts will almost always be rough drafts that are flawed. The rapid prototyping step makes it easier for groups to “fail early to succeed faster.” In this way, it is a good counterbalance to our decade-long focus on high-fidelity implementation of best practices.

Drawing on our recent research on early implementers of Common Core in California, the Leadership Cycle, and more recent work on how to infuse design thinking into the design and implementation of change, this guidebook aims to assist education leaders to identify and make the various choices – we call them design choices – that they will face as they navigate the new and often bumpy road to the Common Core.

---

Section 2: A Mental Model for Designing and Leading Common Core Initiatives

The Leadership Cycle reflects research on the practices of executive leaders in school districts that were beating the odds (see above). It provides a helpful framework for thinking about the challenges of the Common Core and also reveals some places in which the Common Core requires new tools and approaches.

Step 1-Leverage the Context: It has often been noted that successful leaders are “contextually literate.” In the past, this step often took the form of a “needs assessment” and review of data. Bringing a design perspective to the problem, however, is an opportunity to broaden and reframe the problem. Change design starts with an intensive discovery process. Effective leaders look for opportunities and also “hotspots” or “pain points.” They ask themselves questions like, “Are there schools that are beating the odds?” But also, “Where can we find some early wins or areas in which people’s dissatisfaction with the status quo is sufficient to energize them to support a change?”

Our research on early implementers of the Common Core confirms the usefulness of this approach. Many local leaders have developed strategies that leverage existing assets in their district. They have uncovered promising practices already aligned to the Common Core that they can scale, or have taken advantage of pent-up dissatisfaction with a scripted curriculum among their teachers to build their core implementation strategy around teacher-driven curriculum design.

Step 2-Vision & Goals: Many districts are connecting the Common Core to a larger vision for 21st Century Teaching and Learning. These districts have framed the problem not as, “How can we effectively implement the Common Core?” but rather, “How can we prepare our students to thrive in the 21st century?” They have set forth a direction for followers in a narrative about how the future can be better than the past. This approach connects the new standards to things that teachers, parents and students care about by reframing goals in the light of a locally defined and owned vision for better teaching and learning.

As always, defining the vision is only a first step. Leaders must then translate this vision into a set of goals that are both challenging and achievable and that foster a sense of urgency. The LCAP framework challenges districts to set goals that are measurable, challenging, achievable and meaningful. Defining goals that meet all of these criteria is particularly difficult in a period in which the state assessment system is in transition.

Step 2: Key Resources

- Destination Postcard, Chapter 4 of Switch (Chip Heath and Dan Heath)
- How Common Core Must Ensure Equity… (WestEd) http://bit.ly/1fWbHgO
- P21 Common Core Toolkit (P21) http://bit.ly/1kFZue2

Step 3-Designing a Core Strategy:

Vision and goals are a necessary part of a change process, but they are insufficient. Leaders of any change effort need to design a change strategy. The strategy—or sometimes a set of interconnected strategies—defines expectations for common practice and creates a framework for describing both the on-going work of people and the organizational capacity necessary to realize the district’s mission and vision. The Leadership Cycle starts with context mapping to ensure that leaders align their core strategy to other major initiatives or strategies underway in the district. All of these efforts should be focused towards a common vision for improved teaching, learning and opportunities for all students.
With the virtually simultaneous adoption of the LCFF and Common Core, every California district now faces the challenge of designing and implementing core strategies for two major, “whole system” reforms. It may appear tempting to break this daunting challenge into two smaller and more manageable pieces by designing strategies separately under the auspices of traditional organizational structures. For example, the design and implementation of a Common Core strategy may be left mostly to C&I staff, while the design and implementation of LCFF strategy is managed by finance and budgeting. Taking this familiar, “silied” approach to the design of core strategies greatly increases the likelihood that the strategies that emerge may work at cross purposes with one another or fail to converge on the district’s common vision.

As leaders choose a strategy, they must keep in mind that as a “whole system” reform Common Core will eventually change every aspect of the district’s work: curriculum, instruction, assessments, professional development, technology systems, teacher evaluation, roles, and culture. The pathway to change will look different in each district, but every district will face the same challenge, which is that neither individuals nor systems can manage complexity in many dimensions at once. With this fundamental reality in mind, leaders will need to choose a starting point. Our research on early implementers and a recent survey by the California County Superintendents Educational Services Administration (CCSESA) confirm that districts that started implementing Common Core early quickly narrowed their focus to no more than one or two technical changes. At the same time, the survey also suggests that districts that waited are now trying to play “catch up” by implementing numerous major technical change strategies simultaneously. These districts will of course benefit from a growing body of tools and materials, and also from an emerging professional consensus about what works, but efforts to advance change on multiple fronts simultaneously are always hard to implement effectively.

Effective core strategies also encompass guidance as to how these technical changes will be implemented. This requires leaders to address the structures, roles and systems they are building or repurposing to ensure that these strategies are taking root in every classroom, and also the strategies that they are using to manage the human side of the change effort. Michael Fullan has argued that accountability should not be the central strategy for change, and most California districts are engaged with some of the concepts and strategies that Fullan argues were under-valued in the NCLB years: (i) professional learning and coaching in combination with assessment and learning; (ii) improving teacher social capital (e.g., collaboration and group learning); (iii) pedagogy that matches technology; and (iv) systemic synergy.4

Section 3 of this guidebook report details the major technical, rollout and change management challenges and essential questions that leaders must address as they design their core strategy for the Common Core.

Step 4-Messaging and Listening:
School districts are taking the communications challenges inherent in Common Core implementation seriously. Many are communicating their broad vision and the core strategies they have adopted, taking care to articulate a clear through-line or rationale for how their strategy is going to make a difference for students. Too often, however, communication efforts focus on telling constituents about the “what” of reform (“We’ve adopted a new curriculum for math”) or explaining the “why” in terms of function (“We needed a math series that is better aligned to the Common Core”). Leaders in the most successful districts understand that they also must be explicit about more fundamental goals if they hope to prompt people to take effective action on the multiple challenges associated with Common Core implementation. School cultures are notoriously conservative when it comes to assigning meaning, and new structures or processes can be instantly undercut by a culture that says, “Oh, I know what that means,” and assigns a familiar meaning to a new tool, initiative, or strategy.

Effective leaders also recognize that how, how often, and by whom messages are delivered is as important as the messages themselves. For example, leaders well under way in Common Core implementation are developing comprehensive systems to deliver messages and ensure message consistency across the various departments involved in implementation. They have created Common Core webpages for parents, resources in multiple languages, and internal platforms to share resources and information with teachers. They have engaged parents regularly through parent nights, Common Core workshops, and even parent-teacher conferences. Many are trying to build awareness about what the Common Core is all about in terms of teacher practice and student experience.

Step 3: Key Resources

- Choosing the Wrong Drivers for Whole System Reform (Michael Fullan) http://bit.ly/1kca02X
- Getting to the Core: How Early Implementers are Approaching the Common Core in California (PACE/Pivot Learning Partners) http://bit.ly/1eSLp2R

---

Simply crafting and disseminating effective messages is insufficient for managing the human side of the Common Core change effort, however. Districts that effectively engage stakeholders are shifting from one-way communication about the initiative to an ongoing conversation with stakeholders. Starting before an initiative is launched, districts establish robust feedback mechanisms that they use to design and refine tactics. This approach to communications is therefore both proactive and responsive. It captures information that can be utilized for “user-centered design,” but it also enables districts to identify when tactics are not having their intended impact in real time. This data can be captured in multiple ways, including surveys, focus groups, community meetings, walkthroughs and site visits with teachers.

### Step 4: Key Resources

- **SUCCESS Model from Made to Stick (Chip Heath and Dan Heath)**: [http://bit.ly/1g8x8Pr](http://bit.ly/1g8x8Pr)

### Step 5-Design Tactics Using a Design Cycle: Broad-brush strategies must be translated into concrete tactics or action plans, if implementation is to benefit students. Leaders at the top of the system cannot do the actual work of transitioning students. Leaders at the top of the system action plans, if implementation is to benefit must be translated into concrete tactics or

It is often difficult and humbling for leaders to realize that they are handing off the design of tactics to others at this point in the change process. While few leaders explicitly use the language of design to describe this handoff, the Design Cycle provides a structured framework to describe the steps effective leaders are taking.

The Design Cycle formalizes the mindset that is sometimes called design thinking.

The Cycle below is a hybrid that draws from the work of both private and public sector designers. As depicted in the following diagram, the Design Cycle includes the following steps:

1. **Discover**: Identify stakeholders and listen empathetically to their needs and desires.
2. **Interpret**: Analyze key themes and outlier data from discovery phase, and narrow in on the design challenge at hand.
3. **Brainstorm or “ideate”**: Engage in a brainstorming process, going for a large quantity of ideas from which to develop a prototype.

---

7 The Design Cycle is based on similar processes developed by the Henry Ford Learning Institute and IDEO.
4. **Prototype**: Develop a rough prototype, remaining open to feedback, and iteratively refine the prototype based on feedback.

5. **Collect feedback**: Listen empathetically and respond to feedback. Start by engaging a small set of users for the first prototype. Eventually the prototype will be ready for a pilot, which is a test under live conditions at a small scale.

6. **Refine**: Be willing to develop and share multiple versions of the prototype, and be conscious of when it is time to move from design to implementation.

The advantage of using a formal Design Cycle is that it is a systematic process that provides a structure within which a collaborative creative process can unfold. The Design Cycle is especially useful as a way to structure the work of the Task Force or Working Group that most school districts will naturally create when they take on the implementation of the Common Core. For example, many districts are bringing mid-level managers, teachers and site administrators together to develop curriculum and curriculum design tools (e.g., unit templates and curriculum maps), CCSS-aligned report cards, assessments, rubrics, and walk-through tools. The Design Cycle can help structure this work to ensure that it is aligned with the district’s core strategy.

### Step 5: Key Resources
- Design Thinking for Educators (IDEO) http://bit.ly/51D6i
- Pivot Learning Partners’ Design Cycle: A Tool for Change http://bit.ly/1gYhCYW

### Step 6: Continuous Improvement:
Of course, the work of leaders is not completed after the handoff to the group working on developing and monitoring the implementation of tactics. Leaders must:

1. **Continue to mind the boundaries** of the strategy, saying not just “we are about this” but also “we are not about that.”

2. **Provide resources** necessary to develop, test, refine, and scale the tactics to implement their strategy.

3. **Continue to message** the strategy, speaking to people’s hopes and fears, celebrating early wins, and reframing disappointments or missteps as learning opportunities.

4. **Continually create new opportunities for people to opt in.**

5. **Hold the Design Team accountable for wrapping up a design process and moving to full-scale implementation.**

Once the tactics have been designed and taken to scale, effective school districts build systems that foster a culture of continuous improvement. For many, this involves regular evaluation of data and Cycles of Inquiry at the site level. At the district level it involves building systems, roles and structures to hardwire a particular change. For example, districts using a temporary design team to create curriculum will need to create structures and roles to foster implementation and continuous improvement when the design work is finished. This might include developing a new role to monitor the curriculum and establishing a yearly review. Other leaders will choose to create a bigger structure, such as a steering committee focused on implementation.

Effective leaders will also establish **performance management systems and supports**. This involves creating metrics to assess the depth of implementation, as well as the corresponding support mechanisms and interventions that the district will use to foster a sense of group accountability for success. Taking a customer service oriented approach to performance management can help to break down a compliance culture and promote innovation.

### Step 6: Key Resources
- Getting to the Core: How Early Implementers are Approaching the Common Core in California (PACE/Pivot Learning Partners) http://bit.ly/1sLp2JR
- Pivot Learning Partners’ Design Cycle: A Tool for Change http://bit.ly/1gYhCYW

### Section 3: Common Core Design Challenges & Choices
As education organizations embark on what many are explicitly seeing as a journey toward both CCSS and their vision of 21st teaching and learning, leaders face an interconnected set of design challenges. A design challenge is a prompt to create something new. Of course, leaders cannot take on every challenge at once, so they will have to choose where to focus. As leaders choose a particular fork in the road toward the Common Core, new vistas appear before them, but other options or design choices are inevitably left behind.

As noted in the section above and detailed in the research report, Common Core design challenges fall into three main categories:

1. **Technical Challenges**: Where to focus Common Core implementation activities (e.g., instruction, curriculum design, assessment, technology and equity).

2. **Rollout Challenges**: How to structure work to address technical challenges so that the change reaches every teacher, every classroom and every student.
3. Change Management Challenges: How to engage and motivate site administrators, teachers and family and community members to carry on the work of CCSS implementation.

What is a “design challenge”? A “design challenge” is a prompt to create something new. Usually presented to a group (e.g., a Common Core Steering Committee), an individual or an organization, design challenges come in all sizes and scopes. They can be as small as how to design a lesson to meet a certain learning objective, or as large as how to overhaul the district’s professional development system to model the types of learning implied by the Common Core.

What is a “design choice”? Each design challenge comes with a set of design choices or essential questions that represent the decisions that leaders must make to effectively address the challenge. Good leaders (and design teams) make intentional design decisions based on their vision, context and knowledge of best practices (where they exist), and they communicate a clear rationale for the choices they make.

1. Technical Design Challenges for the Common Core

Challenge 1: How might we build the capacity of teachers to equitably implement the types of student-centered instructional strategies implied by the Common Core? Many districts launched their CCSS initiative by building a strong instructional foundation among their teachers, teacher leaders and site administrators. There are a number of benefits to taking on this challenge. It focuses teachers on a new vision for teaching and learning that builds off existing work in this area. It also allows districts to address gaps in curriculum over time, while ensuring that there is a strong foundation in place to implement new approaches effectively and equitably. To successfully address this challenge, districts must also make a number of design choices, including:

- Which strategies are we going to prioritize (e.g., rigor, writing, math practices, strategies for English Learners, project-based learning, 21st Century Skills and technology)?
- What instructional strategies do teachers need to shift to more rigorous instruction for all students?
- How can we build on strong instructional practices already in place, while still changing practice?
- How will we define expectations, and how will we ensure that these strategies are consistently used?
  - Design or redesign a district-wide instructional model that articulates common instructional strategies that all teachers should be regularly employing?
  - Hire instructional coaches?
  - Embed these strategies within a common lesson or unit template?
  - Make them part of our teacher and/or principal evaluation system?
- What about feedback loops? How are we going to know if these strategies are working? How and when will we make adjustments when the data suggests these are needed?
- Should we take an integrated approach to the transition to the Common Core and the New ELD standards?

Challenge 2: How might we address gaps in CCSS-aligned curriculum in ways that foster creativity, address the local culture, scaffold achievement for diverse learners, and increase motivation for teachers? Many districts are engaging teachers in the process of curriculum design—building off existing materials—while making targeted purchases of textbooks and supplemental materials when necessary. Designing curriculum offers teachers a chance to apply newly acquired knowledge about the CCSS to real work in their own grade levels and subject areas, and gives teachers a sense of ownership over the local curriculum. It also helps districts build a cadre of “in-house” experts who can influence and mentor others at the site level, while creating a viable curriculum that is both flexible and adaptable, so that teachers can capitalize on newer and potentially more effective instructional materials when these became available. As districts design their approach to curriculum, there are several essential questions they must also consider:

Challenge 1: Key Resources

- Achieve the Core ELA (http://bit.ly/1oQle33) and Math (http://bit.ly/1nKBtB5) Resources
- Brokers of Expertise (CDE) http://www.myboe.org
- Buck Institute (Project Based Learning) http://bie.org/resources
- Council of Great City Schools’ From the Page to the Classroom Videos ELA (http://vimeo.com/44521437) and Math (http://vimeo.com/44524812)
- Educore (ASCD) http://bit.ly/1V0xZTW
- Ensuring ELs Success with Common Core and the New ELD Standards (WestEd) http://bit.ly/1kg26Q
- Teachers College Reading and Writing Project (Vimeo videos) http://vimeo.com/tcrwp/albums
- Instructional Design Models (Martin Ryder, University of Denver) http://bit.ly/TFEnoEA
- Understanding Language Papers http://ell.stanford.edu/papers/practice
When does it make sense to purchase new textbooks or supplemental materials and when is it preferable to invite teachers to do this?

How are we going to organize the curriculum (e.g., units, projects, and modules)?

How are we going to engage teachers in this process?

At what level are we going to grant teachers autonomy over curriculum (e.g., district level, site level, unit level or lesson level)?

What supports are needed to ensure that the curriculum is viable, comprehensive and rigorous (e.g., pacing guides, curriculum maps, unit/lesson templates, and an “approval process” for teacher-designed units/lessons)?

What criteria are we going to use to vet new instructional materials, materials freely available on the web, or materials developed internally?

If we use a unit template, what are the essential components that should be in all units?

How are we going to build the capacity of younger teachers who may have little experience and training in curriculum design?

How are we going to ensure that teachers can share and adapt the curriculum (e.g., adoption of digital textbooks or an online platform)?

What technology platform will we use to help teachers collaborate and to store and provide broad access to the materials they produce?

If we purchase new materials, how do we roll them out in ways that support implementation efforts?

How are we going to ensure that assistance for English Learners and students with disabilities is integrated in our curriculum?

**Challenge 2: Key Resources**

- Educator’s Evaluating Quality Instructional Products (Achieve) http://achieve.org/EQUIP
- Literacy Design Collaborative (sample units, curriculum design tools) http://ldc.org
- Mathematics Common Core Toolbox (Charles A. Dana Center) http://ccsstoolbox.com
- Publisher’s Criteria (CCSSI) Toolkit for Aligning Instructional and Assessment Materials to the Common Core (Achieve, Student Achievement Partners and CCSSO) http://bit.ly/1ndkON
- Sample Curriculum Maps (Kentucky Department of Education) http://1.usa.gov/1GgjyMy
- Understanding by Design (Grant Wiggins & Jay McTighe) http://bit.ly/1JzMBF
- Understanding Language Sample Units for ELA (http://stanford.io/51KAv7) and Language of Math Task Templates (http://stanford.io/Rkvy3F)

**Challenge 3: How might we design and implement new CCSS-aligned interim and formative assessments to improve teaching and learning and target support for those who need interventions?**

Districts are beginning to address gaps in formative and interim assessments. Some are purchasing assessment systems, but many are asking teachers and/or central office staff to design these. Effective assessments focus on student work and are therefore an essential tool that districts can use to engage teachers in thinking deeply about instructional strategies and subject matter content. For districts rolling out CCSS implementation through data-driven PLCs, high-quality assessments are critical.

As districts design their approach to addressing this challenge, they will be confronted with the following questions, or design decisions:

- How are we going to ensure that having a focus on assessment will promote innovation and risk-taking rather than stifle them?
- Should we purchase or design these assessments internally?
  - Is a combination of purchased and internally designed assessments optimal?
  - Should we wait until the state decides whether they will purchase SBAC’s benchmark assessments and make these available for free?
- Which assessments are of the highest priority?
  - Benchmark assessments?
  - Formative assessments for math?
  - Performance based assessments (e.g., writing)?
- How does the district’s Response to Intervention (RTI) system need to change in light of the Common Core?
- How are we going to involve teachers in this process?
- Which assessments should be standardized district-wide?
- Are there aspects of formative assessments that teachers are designing at the classroom level that we want to standardize? If so, how are we going to do this?
- How are we going to connect these assessments to other Common Core implementation activities?
- How will we review teacher-designed assessments and will there be an “approval” process?
What technology platform will we use to help teachers collaborate and to store and provide broad access to the assessments and other tools they produce?

**Challenge 3: Key Resources**
- Achieve the Core ELA (http://bit.ly/1xUYe33) and Math (http://bit.ly/1nkBRtj) Resources
- Mathematics Common Core Toolbox PARCC Prototyping Project (Charles A. Dana Center) http://bit.ly/1gYoobv
- The MILE Guide: Milestones for Improving Learning and Education (P21) http://bit.ly/1nCuy5h
- National Center on Response to Intervention’s Tools Charts http://bit.ly/1jN0xBp

**Challenge 4: Key Resources**
- CA Technology Assistance Project (CDE) http://techconnect20.com
- SBAC Technology Readiness Tool http://bit.ly/1hi7I1O
- Substitution Augmentation Modification Redefinition (SAMR) model (Dr. Ruben Puentedura) http://bit.ly/1nSW0PL
- Stratosphere (Michael Fullan)

---

**Challenge 4: How might we leverage technology to promote deeper and more personalized learning for students, teachers and administrators?**

Though the short-term technology focus in most districts is on testing, many districts are hoping to leverage the transition to the Common Core to transform how they are using technology to enhance student learning. There are some important design choices related to technology, including:

- How can we use technology to address instructional shifts in the Common Core, such as the increase in rigor?
- How are high-need students going to access technology offsite? How will we promote digital literacy for students and families?
- What is the appropriate ratio of devices to students that is necessary to implement our curriculum and instructional models?
- Should we make technology a required part of summative assessments for our units and/or projects?

- Should the district be transitioning to digital textbooks or ebooks?
- How can we leverage technology to deepen our Common Core professional development for teachers and administrators?
- How much site level autonomy over technology purchases is appropriate?
- What type of staff development will be necessary?
- Who will train the students in the use of these devices?

**Other Technical Design Choices for Common Core Implementation:** When researching early implementers of Common Core, the following crosscutting technical design choices emerged:

1. **Blended and Personalized Learning:** Some districts are leveraging the Common Core as an opportunity to shift to a more personalized approach to instruction, one that frequently involves blending technology-enhanced instruction and curriculum with more one-on-one coaching from an instructor.

2. **Linked Learning:** Linked Learning is a high school improvement approach that connects academics with real-world career-oriented experiences in a wide range of fields. With the passage of AB 790, many districts are launching, scaling and/or redesigning Linked Learning efforts to meet the expectations of the Common Core.

3. **21st Century Skills:** Last year, the California Department of Education joined the Partnership for 21st Century Skills (P21) network, which focuses on getting every student ready for an increasingly competitive economy that demands innovation.

4. **Integrating the New ELD Standards and Next Generation Science Standards (NGSS):**

   Adopted in 2013, districts will need to decide whether to begin integrating transition efforts into implementation activities planned for the Common Core.

5. **Middle School and High School Math Articulation:**

   Many districts are taking advantage of the choices embedded in the CCSS and are opting to redesign the course sequence for math in middle school and high schools.
1. **Instructional Leadership:** Faced with limited time and resources, districts may decide to involve site administrators and teacher leaders as key participants in their rollout approach. As they do, they must consider:

- How will the district sequence and align professional learning opportunities for site administrators, teacher leaders and teachers?
- How will the district support site administrators so that they have more bandwidth and capacity to devote to instructional leadership? What tools and other supports will they need to perform this role well (e.g., classroom observation protocols)? How will existing structures for principals need to shift in light of the Common Core?
- How much professional learning will all teachers need, and what parts should be delivered at the site level through teacher leaders or through staff meetings?
- How much extra professional learning will teacher leaders need before they can effectively teach what they have learned to their peers?
- How many teacher leaders are necessary at each site, or on each grade level and/or subject area team, to ensure that this learning takes place and that new practices are implemented?
- How much extra collaboration time will teachers need to deliver this training?
- What roles, expectations and support and monitoring systems are necessary to ensure that site level leaders can succeed?

2. **Insourcing and outsourcing:** Most districts are aware of research that says that major change rarely happens in organizations that do not enlist outside help. They are simultaneously aware of the fact that developing a sustainable CCSS implementation strategy will require them to rely on their own teachers and administrators to lead as well as implement the change. Inevitably, therefore, districts will engage with some set of external experts while working to build the capacity of their own teachers and administrators. Getting the balance right is important, and an ongoing design challenge for leaders.

3. **Instructional Coaches:** Many districts are expanding the use of instructional coaches, frequently teachers on special assignment or central office trainers, to help reinforce professional learning in instruction and curriculum design.

4. **Aligning Accountability Systems to Common Core:** Many districts are struggling with how to set clear and rigorous expectations for site administrators and teachers without inhibiting local educators’ willingness to innovate and experiment. Eventually all systems should be aligned to the Common Core, but districts face some design choices around how to sequence this alignment. In our research, most districts delayed aligning accountability systems and processes to the Common Core until after the district had made significant progress on implementation. For example, some districts are redesigning teacher and principal evaluations to reflect the new standards; of these, most waited until several years into implementation. Similarly, while most have done some work aligning assessments to the new standards, they have been careful not to overemphasize how students do on assessments in the short term, so as to encourage teachers to try new strategies.

3. **The Change Management Design Challenge**

Most ambitious change efforts fail, and many do so because leaders do not effectively address the human side of change. This includes issues of motivation for individuals, as well as aspects of the organizational culture that inhibit change. Culture changes first through action; structural changes and changes in personal beliefs follow. Districts must create opportunities for people to experience a new culture and belief system in action before they can expect lasting changes in professional behavior.

What follows is a series of design choices that many districts are grappling with as they seek to engage and motivate their stakeholders around a core strategy for the Common Core.

1. **The “Goldilocks” Problem:** The most important design choice facing districts relates to how much to take on at any one time. Take on too much, and teachers and administrators feel overwhelmed. They do nothing or—even worse—implement new instructional strategies, curriculum or assessments with insufficient commitment or energy. Take on too little, and we send the message that we don’t need to change current practice to meet the new standards. Like any good teacher, an effective leader will set the pace of implementation activities “just right,” so that teachers and administrators are stretched but not inundated. For professional learning activities this involves setting clear expectations about what teachers and administrators should be doing to apply what they have learned in their schools and classrooms.

2. **Autonomy vs. Standardization:** Standardization of curriculum and program design is a reasonable strategy to ensure quality, especially in a resource-constrained system. If districts offer meaningful choices to families about the education of their children, however, then standardization is no longer an option and the focus shifts to
site-level autonomy. What will be decided at the district, school, or classroom level? Ought the district to designate a particular school as a STEM magnet, for example, or should schools choose their focus? Will individual teachers be allowed, encouraged or even required to design lessons? If yes, then is the goal of “common practice” among teachers still on the table? If so, and many believe that common practice is an essential foundation for the creation of a professional learning community, then how will agreements about common practice be forged and maintained? Most importantly, how will the district support this increased autonomy?

3. Top down vs. Bottom up Leadership: Research and experience tell us that neither top down nor bottom up leadership strategies are effective. As school districts enter into the world of Common Core, most have embraced the opportunity to dramatically change the balance between top down and bottom up change strategies. The various promising practices that are emerging as districts reach out to teachers and principals to help design both specific tools (like assessments, standards maps and lesson planning templates) and even the change process itself reflects a general consensus that NCLB over-emphasized top down or leader-driven strategies and that the balance needs to be adjusted.

4. Managed Instruction vs. Engaging Teachers in Design: Leaders can only inspire and motivate people by tapping into their values and beliefs. Leaders often think that their role is to share their personal vision for addressing a particular challenge, but the real task is to connect the work at hand with the needs and values of the individuals in the system. For many districts in California in the recent past standards-based reform was driven mostly by the central office. Early implementers of CCSS have taken a different approach. Most are making substantial efforts to involve teachers in the design of Common Core change. If districts choose to engage teachers in designing and leading the change effort, they might benefit from a structured process like the Design Cycle.

5. Inform vs. Engage: Like any large and complex change initiative, success with Common Core implementation will hinge on leaders’ success in building strong and sustained buy-in for the district’s strategy, and in motivating educators to change their practices. Districts will have to decide how to engage families, teachers and other stakeholders most effectively in the initiative. From our experience and research, the first step of effective communication begins with listening empathetically to these stakeholders, and designing strategy and tactics accordingly. Listening builds trust, and with trust the impossible becomes possible. Taking this approach requires leaders to embrace conflict and develop the technical and organizational infrastructure to manage community engagement initiatives well. Developing and delivering effective and compelling messages is essential, but districts should also consider how to create feedback loops for Common Core implementation that can produce data that can be used to design and refine tactics.

Section 4: CONCLUSION
Since the Common Core State Standards were created and adopted academics, think tanks and education reform providers have framed the transition as a series of “shifts.” With good reason, much of the emphasis has been on shifts in instruction, but focusing primarily on instruction runs the risk of undervaluing the many other shifts that must occur for the new standards to reach their promise. If the Common Core is to support the dramatic improvements in teaching and learning that its advocates intend—if more students are to be supported to go deeper and reach higher—then school systems must be led in new ways. As leaders define goals and decide on core strategies, tactics and messages, they would do well to consider the full array of shifts that successful implementation will require. Shifts in teacher practices require a related set of shifts for leaders and for how the system is organized. In California, especially, the CCSS require that schools and districts rethink how they lead, manage and support teachers and curriculum-focused change.
Addressing these leadership, system and instructional shifts presents a number of design and implementation challenges for school districts. Some of these are technical. How are we going to build the instructional capacity of teachers to implement student-centered strategies? How are we going to address gaps in assessments and curriculum that improve teaching and learning and promote innovation and motivation? Others relate to how districts are going to structure the work to reach every site, classroom and child, and how they are going to motivate administrators, teachers, and family and community members along the way. This Strategy Guide provides a research-based, structured and human-centered process for leaders that can help them to design initiatives that address these challenges.


Achieve the Core. (2014). “English Language Arts Resources.” Retrieved January 7, 2014: http://www.achievethecore.org/dashboard/300/search/1/1/0/1/2/3/4/5/6/7/8/9/10/11/12 (Note: This website has resources for instruction, curriculum design and assessments.)

Achieve the Core. (2014). “Math Resources.” Retrieved January 7, 2014: http://www.achievethecore.org/dashboard/300/search/1/2/0/1/2/3/4/5/6/7/8/9/10/11/12 (Note: This website has resources for instruction, curriculum design and assessments.)


Charles A. Dana Center at the University of Texas, Austin. (2014). “Mathematics Common Core Toolbox.” (Web resource). Retrieved January 17, 2014: http://www.ccsstoolbox.com/ (Note: This resource also contains the "PARCC Prototyping Project")


(Note: This web resource includes Sample ELA units and lessons.)


Policy Analysis for California Education (PACE) is an independent, non-partisan research center based at Stanford University, the University of California Berkeley, and the University of Southern California. PACE seeks to define and sustain a long-term strategy for comprehensive policy reform and continuous improvement in performance at all levels of California’s education system, from early childhood to post-secondary education and training. To accomplish this goal, PACE bridges the gap between research and policy, working with scholars from California’s leading universities and with state and local policymakers to increase the impact of academic research on educational policy in California.

Founded in 1983, PACE:

- Publishes policy briefs, research reports, and working papers that address key policy issues in California’s education system.
- Convenes seminars and briefings that make current research accessible to policy audiences throughout California.
- Provides expert testimony on educational issues to legislative committees and other policy audiences.
- Works with local school districts and professional associations on projects aimed at supporting policy innovation, data use, and rigorous evaluation.

We would like to thank the Bill and Melinda Gates Foundation for financial support for the publication of this report. The views expressed are those of the authors and do not necessarily reflect the views of PACE or its funders.