

DESIGNING, LEADING AND MANAGING THE TRANSITION TO THE COMMON CORE:

A Strategy Guidebook for Leaders

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.

In the case of the Common Core State Standards (CCSS), the territory they are navigating is substantially new. It is well

Authors

Pivot Learning Partners: Brentt Brown, Director of Innovation, and Merrill Vargo, Executive Director



Pivot Learning Partners is a nonprofit organization of K-12 experts that provides strategic vision for reform along with the on-the-ground training and implementation support needed by schools and districts to address the biggest challenges they face in creating more equitable systems of schools. This report draws from the organization's research-based Leadership and Design Cycles, our recent research with PACE on early implementers of Common Core in California, and our experience supporting Common Core implementation in dozens of school districts across the state.

http://www.pivotlearningpartners.org

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 studentcentered 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 and target support for those that need interventions.
- 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 evidenced-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.

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-thenight 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:

- 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.
- 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.

- 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.¹ 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,² the *Leadership Cycle*,³ 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.

¹ Kotter, J. (2008). A Sense of Urgency. Harvard Business School Publishing. Cambridge, MA.

² Brown, B., Plank, D. and Vargo, M. (2014). "Getting to the Core: How Early Implementers are Approaching the Common Core in California." Policy Analysis California Education. Stanford, CA.

³ Pivot Learning Partners. (2010). *The Leadership Cycle: A Mental Model for Leading Change*. Retrieved January 23: http://pivotlearningpartners.org/sites/default/files/Leadership-Cycle.pdf

The Leadership Cycle: A Mental Model for Leading Change Vision and Goals 1. Understanding upon the last and and Leveraging the Context throughout the 2. Defining Vision and Goals 3. Articulating Strategy adjust the cycle on the basis of results. 4. Crafting Key **Tactics** Messages and "Managing Meaning" 5. Implementing Tactics 6. Examining Results and Adjusting **Continuous** for Continuous Results **Improvement** Improvement on multiple steps at the same time Rev 7/10

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 teacherdriven 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.

Key Resources

- Common Core Implementation Workbook, Chapter 2 (Achieve/USEDI)
- Common Core Readiness Assessment (Pivot Learning Partners)
- Discover Quick Guide (Pivot Learning Partners)
- One Billion Dollar Question:
 How Can Districts and Schools
 Equitably Implement the
 Common Core (Education Trust-West)

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 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

Key Resources

- Destination Postcard, Ch. 4 of Switch (Chip Heath and Dan Heath)
- How Common Core Must Ensure Equity...(WestEd)
- P21 Common Core Toolkit (P21)

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, "siloed" 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.

Key Resources

- CCSS Leadership Planning Guide (CCSESA)
- Choosing the Wrong Drivers for Whole System Reform (Michael Fullan)
- Getting to the Core: How Early Implementers are Approaching the Common Core in CA (PACE/Pivot)
- Implementing the Common Core Workbook (Achieve/USEDI)

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.

Simply crafting and disseminating effective messages is insufficient for managing the human side of the Common Core change effort, however. Districts that

Key Resources:

- Common Core Communication Toolkit (CA Dept. of Education)
- Common Core Implementation Workbook, Chapter 4, Get the Message Out (Achieve/USEDI)
- Parent Guides to the Common Core Standards (PTA)
- Program in Action: Listening Campaign (Pivot Learning Partners)
- Resources for Parents (Achieve the Core)
- SUCCESS Model from Made to Stick (Dan and Chip Heath)

effectively engage stakeholders are shifting from one-way communication about the initiative to an on-going conversation with stakeholders.⁵ 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 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 to the Common Core. Instead, mid-level managers in the district office, classified staff, principals, teachers, parents and students must step up to do the work of creating and implementing the tactics necessary to make the core strategy real. In our research on early implementers, these stakeholders often represented untapped resources, and a deep reservoir of practical,

on-the-ground wisdom about what works.

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.⁶

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.⁷ As depicted in the following diagram, the Design Cycle includes the following steps:

- 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.
- 4) Prototype: Develop a rough prototype, remaining open to feedback, and iteratively refine the prototype based on feedback.
- 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), CCSSaligned 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 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:

- 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.

Key Resources:

- CCSS Leadership Planning Guide (CCSESA)
- Design Thinking for Educators (IDEO)
- Pivot Learning Partners' Design Cycle: A Tool for Change

⁵ Mapp, K. (June 21, 2012). Web presentation: "Engaging Parents in Schools and Student Learning." *EdWeek*. Langhorne, PA. ⁶Pivot Learning Partners (2013). "Pivot Learning Partners' Design Cycle: A Tool for Change." Retrieved January 7, 2014: http://pivotlearningpartners.org/sites/default/files/PivotChangeDesign-2013_0.pdf

⁷The *Design Cycle* is based on similar processes developed by the Henry Ford Learning Institute and IDEO.

- **4.** Continually create new **opportunities for people to opt in.**
- Hold the Design Team
 accountable for wrapping up a
 design process and moving to
 full-scale implementation.

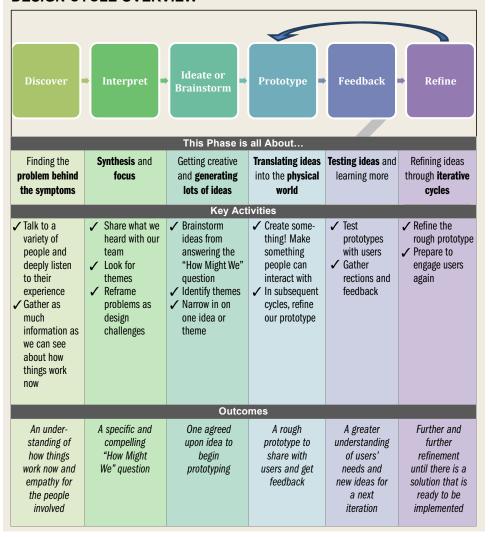
Once the tactics have been designed and taken to scale, effective school districts build systems that foster a culture of continuous improvement. For many, this involves regular evaluation of data and Cycles of Inquiry at the site level. At the district level it involves building systems, roles and structures 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.

Key Resources:

- Getting to the Core: How Early Implementers are Approaching the Common Core in California (Pivot/PACE)
- Pivot Learning Partners' Design Cycle: A Tool for Change
- Common Core Implementation
 Workbook, Chapter 11 (Achieve/USEDI)

DESIGN CYCLE OVERVIEW



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:

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)

DESIGNING, LEADING AND MANAGING THE TRANSITION TO THE COMMON CORE: A Strategy Guidebook for Leaders

- 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.

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

Key Resources:

- Achieve the Core **ELA** and **Math** Resources
- Brokers of Expertise (CDE)
- Buck Institute (Project Based Learning)
- Council of Great City Schools' From the Page to the Classroom Videos (*ELA* and *Math*)
- Educore (ASCD)
- EngageNY Common Core Shifts
- Ensuring EL's Success with Common Core and the New ELD Standards (WestEd)
- Hess' Cognitive Rigor Matrix and Curricular Examples (Karin Hess)
- Illustrative Mathematics
- National Writing Project
- Support Struggling Students with Academic Rigor (ASCD)
- Teacher's College Reading and Writing Project (vimeo videos)
- Teaching 21st Century Skills (ACSD)
- Instructional Design Models (Martin Ryder, University of Denver)
- Understanding Language Papers

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 districtwide 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

Key Resources:

- Achieve the Core: ELA and Math Resources, Basal Alignment Project and the Anthology Alignment Project
- Colorado's District Sample Curriculum Project
- CDE's Revised Curriculum Frameworks and List of Approved Supplemental Materials
- Curriculum Review Tool (AFT): Math and ELA
- Educator's Evaluating Quality Instructional Products (Achieve)
- EngageNY Common Core Curriculum and Assessment Resources
- Literacy Design Collaborative (sample units, curriculum design tools)
- Mathematics Common Core Toolbox (Dana Center)
- Mathematics Curriculum Materials Analysis Project (Network, Communicate, Support, Motivate)
- Math Design Collaborative
- Publisher's Criteria (CCSSI)Toolkit for Aligning Instructional and Assessment Materials to the Common Core (Achieve, Student Achievement Partners and CCSSO)
- Sample Curriculum Maps (Kentucky Department of Education)
- Understanding by Design (Grant Wiggins)
- Understanding Language Sample Units for ELA and Language of Math Task Templates

- 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 a<u>ddress gaps</u> 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:

- 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 3: How might we <u>design and</u>

Key Resources:

- Achieve the Core ELA and Math Resources
- EngageNY Common Core Curriculum and Assessment Resources
- Mathematics Common Core Toolbox, PARCC Prototyping Project (Charles A. Dana Center)
- The MILE Guide: Milestones for Improving Learning and Education (P21)
- National Center on Response to Intervention's Tools Charts
- SBAC: Practice and Pilot Tests and Writing Rubrics

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 teachers 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 risktaking 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 teacherdesigned 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 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

Key Resources:

- CA Technology Assistance Project (CDE)
- Maximizing the Impact: The Pivotal Role of Technology in a 21st Century Education System (P21)
- SBAC Technology Readiness Tool
- SBAC Usability, Accessibility and Accommodations Guidelines
- Substitution Augmentation Modification Redefinition (SAMR) model (Dr. Ruben Puentedura)
- Stratosphere (Michael Fullan)

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 technologyenhanced instruction and curriculum with more one-on-one coaching from an instructor.

Linked Learning: Linked
Learning is a high school
improvement approach that
connects academics with realworld 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.

2. The Rollout Design Challenge

Given the diminished organizational capacity in schools and districts that has resulted from years of budget cuts, districts face one major rollout design challenge: how might we structure work to address the challenges identified above to ensure that the technical changes they produce reach every teacher, every classroom and every student? To respond, districts are carefully designing, repurposing or leveraging existing organizational structures, systems and tools to successfully roll out their Common Core strategies. This work poses the following major design choices.

- 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

 10 entation 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

Getting to the Core: How Early
Implementers are Approaching
Common Core profiles how 11
districts are rolling out their Common
Core strategies. To learn more about
the structures, roles, tools, processes
and agreements they are designing or
leveraging click here: Link source to
be provided.

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

Eight Essential Change Management Practices for Implementing the Common Core

- Connect the initiative to a broader vision for improved teaching and learning.
- 2) Manage the pace of change and narrow focus.
- Increase the amount of site/ classroom level of autonomy over curriculum and instruction, while providing enhanced support.
- 4) Enroll teachers and site administrators in the design process.
- Build and/or repurpose feedback loops and refine strategies and tactics accordingly.
- 6) Increase leadership development opportunities for site administrators and teacher leaders.
- Couple bottom up change management strategies with clear expectations and accountability.
- Inform, engage and involve parents and community members.

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 curriculumfocused 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.

Bibliographical Information for Resources Listed in this Strategy Guide

Achieve. (2014). "Educators Evaluating Quality Instructional Products (EQUIP)." Retrieved January 17, 2014: http://achieve.org/EQUIP

Achieve & U.S. Education Delivery Institute. (2012). Implementing Common Core Standards and Assessments: A Workbook for State and District Leaders. Retrieved January 7, 2014: http://www.achieve.org/ ImplementingCommonCore

Achieve the Core. (2014). "Common Core Resources for Parents and Community Members (Web resource)." Retrieved on January 8, 2014: http://www.achievethecore.org/common-core-intro-for-parents

Achieve the Core. (2014). "Anthology Alignment Project". (Web resource). Retrieved January 17, 2014: http://www.achievethecore.org/page/753/aap-project-page

Achieve the Core. (2014). "Basal Alignment Project". (Web resource). Retrieved January 17, 2014: http://www.achievethecore.org/page/751/bap-project-page

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.

Achieve, Student Achievement
Partners and Council of Chief State
School Offices. (2013). Toolkit for
Aligning Instructional and Assessment
Materials to the Common Core. Retrieved
January 17, 2014: http://www.ccsso.org/Documents/2013/Toolkit for
Evaluating Alignment of Instructional
and Assessment Materials.pdf

American Federation of Teachers. (2012). Assessing Alignment to the Common Core Standards: A Curriculum Review Tool for English Language Arts. Retrieved January 17, 2014: http://www.aft.org/pdfs/tools4teachers/ EnglishEvaluationTool 2013.pdf

American Federation of Teachers. (2012). Assessing Alignment to the Common Core Standards: A Curriculum Review Tool for Mathematics. Retrieved January 17, 2014: http://www.aft.org/pdfs/tools4teachers/ MathEvaluationTool 2013.pdf

Allen, R. (2012). "Support Struggling Students with Academic Rigor, A Conversation with Author and Education, Robyn Jackson." *ASCD Educational Leadership*. August 2012, Volume 54, No. 8. Retrieved January 16, 2014: http://www.ascd.org/publications/newsletters/education-update/aug12/vol54/num08/Support-Struggling-Students-with-Academic-Rigor.aspx

ASCD. (2014). "Educore: Tools for Teaching the Common Core" (web resource). Retrieved January 16, 2014: http://educore.ascd.org/

Beers, S. Z. (2010). *Teaching* 21st *Century Skills*. ASCD. Alexandria, VA

Brown, B., Vargo, M. and Plank, D.N. (2014). "Getting to the Core: How Early Implementers are Approaching the Common Core in California." (Source link to be provided)

Buck Institute. (2014). "Resources." (web resource). Retrieved January 23: http://bie.org/resources.

California County Superintendents
Educational Services Association. (2013).
Leadership Planning Guide California:
Common Core State Standards and
Assessments Implementation. Retrieved
January 7, 2014: http://ccsesa.wpengine.com/wp-content/uploads/2013/12/LeadPlanGuide.pdf

California Department of Education. (2014). "All Curriculum Frameworks." (Web resource) Retrieved January 17, 2014: http://www.cde.ca.gov/ci/cr/cf/allfwks.asp Note this resource will eventually contain all of the updated curriculum frameworks for CCSS in California

California Department of Education, Brokers of Expertise. (2014). Retrieved January 16, 2014: http://www.myboe. org/ (Note: This web-based platform contains numerous professional development modules to support teachers on instructional shifts associated with the Common Core.)

California Department of Education. (2012). "California Common Core Communications Toolkit." Retrieved January 8, 2014: http://www.cde.ca.gov/re/cc/documents/cdecommstoolkit.doc

California Department of Education. (2014). "California Technology Assistance Project." (web resource). Retrieved January 17, 2014: http://www.myctap.org/

California Department of Education. (2014). "Supplemental Materials Review." (web resource). Retrieved January 17, 2014: http://www.cde.ca.gov/ci/cr/cf/suptsupmatreview.asp

California State PTA. (2014). Parent Guides to the Common Core Standards (web resource). Retrieved January 8, 2014: http://www.capta.org/sections/programs/e-standards.cfm 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.")

Colorado Department of Education. (2014). "Colorado's District Sample Curriculum Project." (web resource). Retrieved January 17, 2014: http://www.cde.state.co.us/standardsandinstruction/samplecurriculumproject

Common Core State Standards Initiative. (2014). "Resources". (Web resource). Retrieved January 17, 2014: http://www.corestandards.org/resources (Note: This web page contains multiple documents related to publisher's criteria for the Common Core State Standards.)

Council of Great City Schools. (2013). From the Page to the Classroom Video ELA. Retrieved January 16, 2014: http://vimeo.com/44521437

Council of Great City Schools. (2013) From the Page to the Classroom Video Math. Retrieved January 16, 2014: http://vimeo.com/44524812

Education Trust-West (2013) The Billion Dollar Question: How Can Districts
Equitably Implement the Common Core.
Retrieved January 7, 2014: http://www.edtrust.org/sites/edtrust.org/files/ETW_CCSS_Needs%20Assessment_August2013_0.pdf

EngageNY (2014) "Common Core Shifts." (Web resource). Retrieved January 16, 2014: http://www.engageny.org/resource/common-core-shifts/

EngageNY (2014). "Common Core Curriculum and Assessments." (Web resource). Retrieved January 16, 2014: http://www.engageny.org/commoncore-curriculum-assessments
Fullan, M. (2011). Choosing the Wrong
Drivers for Whole System Reform.

Retrieved December 24, 2013: http://www.edsource.org/today/wp-content/uploads/Fullan-Wrong-Drivers1.pdf

Fullan, M. (2012). *Stratosphere: Integrating Technology, Pedagogy and Change Knowledge.* Pearson Education. Canada.

Heath, C. and Heath, D. (2008). "Made to Stick SUCCESS Model". Retrieved January 7, 2014: http://heathbrothers.com/download/mts-made-to-stick-model.pdf

Heath, C. and Heath, D. (2010). *Switch*. Broadway Books, New York, NY.

Hess, K. (2009). "Cognitive Rigor Matrix and Curricular Examples." Retrieved January 16, 2014: http://static.pdesas.org/content/documents/M1-Slide_22_DOK_Hess_Cognitive_Rigor.pdf

IDEO. (2012). Design Thinking for Educators Toolkit (2nd Edition). Retrieved January 7, 2014: http://designthinkingforeducators.com/toolkit/

Illustrative Mathematics. (2014). "Illustrative Mathematics." Retrieved January 16, 2014: http://www.illustrativemathematics.org/

Kentucky Department of Education. (2014). "Sample Curriculum Maps". (web resource). Retrieved January 17, 2014: http://education.ky.gov/curriculum/docs/cm/Pages/default.aspx

Linquanti, R. (2013). "Ensuring English Learners' Success with Common Core and the New ELD Standards" (Power Point Presentation). Comprehensive School Assistance Program, WestEd. Retrieved January 16, 2014: https://s3.amazonaws.com/pnmresources/pID-508/topic-58305/462025889-Linquanti Session.pdf

Literacy Design Collaborative. "Sample Curricula and Core Tools." Retrieved January 17, 2014: http://www.ldc.org/

Math Design Collaborative. (2014). "Making Mathematics Matter" (web resource). Retrieved January 17, 2014: http://collegeready.gatesfoundation.org/Learning/MathDesignCollaborative

National Center on Response to Intervention at American Institutes for Research. "Tools Charts." (Web resource). Retrieved January 17, 2014: http://www.rti4success.org/resources/ tools-charts

Network Communicate Support Motivate (NCSM). (2014). "Math Leadership Common Core State Standards Materials Analysis Tools". Retrieved January 17, 2014: http://www.mathedleadership.org/ccss/materials. html

National Writing Project (2014).

"Teaching Writing." (Web resource).

Retrieved January 16, 2014: http://www.nwp.org/cs/public/print/resource_topic/teaching_writing

Partnership for 21st Century Skills (P21). (2009). *Maximizing the Impact: The Pivotal Role of Technology in a 21st Century Education System*. Retrieved January 17, 2014: http://www.p21.org/storage/documents/p21setdaistepaper.pdf

Partnership for 21st Century Skills (P21). *The MILE Guide: Milestones for Improving Learning and Education.* Retrieved January 17, 2014: http://www.p21.org/storage/documents/MILE Guide 091101.pdf

Partnership for 21st Century Skills. (2012). *The P21 Common Core Toolkit.* Retrieved January 17, 2014: http://www.p21.org/storage/documents/P21CommonCoreToolkit.pdf

Pivot Learning Partners (2013). "Common Core Readiness Assessment." Retrieved January 7, 2014: http://pivotlearningpartners.org/sites/default/files/CCSS-ELD Readiness Inventory.pdf

Pivot Learning Partners. (2013). "Discover: Quick Guide".
Retrieved January 21, 2014: http://pivotlearningpartners.org/sites/default/files/DESIGN-DISCOVER-PHASE-QUICK-GUIDE 0.pdf

Pivot Learning Partners. (2013). "Pivot Learning Partners' Design Cycle: A Tool for Change." Retrieved January 7, 2014: http://pivotlearningpartners.org/sites/default/files/
PivotChangeDesign-2013 0.pdf

Pivot Learning Partners. (2012). "Program In Action: Listening Campaign". Retrieved January 23: http://pivotlearningpartners.org/sites/default/files/Pivot%20DRW%20 PIA%20Listening%20Campaign%20 Approach_0.pdf

Puentedura, R. (2014). "Substitution Augmentation Modification Redefinition (SAMR) Model." Retrieved January 17, 2014: http://www.hippasus.com/rrpweblog/

Ryder, M. "Instructional Design Models." (Web resource). Retrieved January 16, 2014: http://carbon.ucdenver.edu/~mryder/itc/idmodels.html

Smarter Balanced Assessment
Corporation (SBAC). (2012). "English
Language Arts Rubrics." Retrieved
January 17, 2014: http://www.smarterbalanced.org/wordpress/wp-content/uploads/2012/05/TaskItemSpecifications/EnglishLanguageArtsLiteracy/ELARubrics.pdf

Smarter Balanced Assessment Corporation (SBAC). (2014). "Practice and Pilot Tests." (Web resource). Retrieved January 17, 2014: http://www.smarterbalanced.org/practice-test/

Smarter Balanced Assessment Corporation (SBAC). (2014). "Smarter Balanced Technology Readiness Tool." (Web resource). Retrieved January 17, 2014: http://www.cde.ca.gov/ta/tg/sa/sbac-itr-index.asp

Teacher's College Reading and Writing Project (2014). "TC Reading and Writing Project Vimeo Album." (Web resource). Retrieved January 16, 2014: http://vimeo.com/tcrwp/albums

Understanding Language (2014). "Language, Learning and Literacy in the Content Areas." (Web resource). Retrieved January 16, 2014: http://ell.stanford.edu/papers/practice

Understanding Language (2014). "Language of Math Task Templates." Retrieved January 17, 2014: http://ell.stanford.edu/teaching resources/math

Understanding Language. (2014). "Teaching Resources, English Language Arts." (Web resource). Retrieved January 17, 2014: http://ell.stanford.edu/teaching_resources/ela (Note: This web resource includes Sample ELA units and lessons.)

Wiggins, G. and McTighe, J. (2005). *Understanding by Design*. Chapter 1. ASCD. Alexandria, VA. Retrieved January 17, 2014: http://www.ubdexchange.org/resources/backwards.html



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.