

Learning from the Past

Drawing on California's CLAS Experience to Inform Assessment of the Common Core

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About the California Collaborative on District Reform

The California Collaborative on District Reform, an initiative of the American Institutes for Research, was formed in 2006 to join researchers, practitioners, policymakers, and funders in ongoing, evidence-based dialogue to improve instruction and student learning for all students in California's urban school systems.

Introduction

The Common Core State Standards represent an exciting step forward for California and for the nation as a whole in supporting instruction that can better prepare students for college and career success. To realize the benefits of the Common Core, however, educators must implement the standards well, applying lessons gleaned over two decades of standards-based reform. In this vein, forward-thinking districts have already started building capacity and adapting instructional materials and practices to prepare students to master this new set of college- and career-readiness standards. Because assessment tasks not only provide evidence of student learning, but can also help teachers understand the nature of learning embodied in the Common Core, these district activities often focus on student assessment as an essential component of the implementation and instructional process.

Concurrent with these efforts, the Smarter Balanced Assessment Consortium (SBAC), of which California is a governing member, is developing a new large-scale assessment system that will align to the Common Core and aims to capture student learning in a deeper and more authentic way than the current California Standards Test (CST). The SBAC assessments in English language arts (ELA) and mathematics are scheduled to replace the CST in 2014–15.

This is not the first time that California has transitioned to a new system of academic standards, instruction, and assessment; in particular, potential parallels exist between the assessment the SBAC is developing and the short-lived California Learning Assessment System (CLAS) from the early 1990s. Common features of both systems include alignment to the content of instruction and the inclusion performance tasks¹ that reflect an emphasis on students' understanding and ability to apply their learning. (Some obvious differences exist as well. For example, the SBAC is a multi-state rather than California-specific effort, and SBAC assessment developers plan to produce individual student scores from the outset.)

Though the CLAS received praise from many educators as being "cutting edge," it was plagued by both technical flaws and political controversies that led to its discontinuation after only two years. As educators embrace the challenges associated with assessment of the Common Core, it is instructive to learn from the CLAS experience—both to build on its successes and to avoid the mistakes that led to its demise.

The Story of the CLAS

In 1991, Senate Bill 662 charged the California Department of Education (CDE) with developing the CLAS to replace the California Assessment Program (CAP) as the statewide testing system. The transition stemmed from a desire to address important limitations of the CAP, including a lack of alignment to instructional content, failure to produce individual student scores, and a pure multiple-choice format that critics argued

did not fully capture student cognitive performance (Cohen & Hill, 2001; Cronbach, Bradburn, & Horvitz, 1994). The new system was aligned to the California Frameworks² of the time, which stressed students' ability to master underlying skills and subject matter content knowledge and apply them to real-world circumstances. Designed to test all of California's students in grades 4, 8, and 10 in mathematics, writing, science, and social studies, the CLAS originally had three major purposes: (1) to measure what students were being taught, as delineated by the California Frameworks; (2) to comprehensively assess mastery of curricular content with both performance tasks and multiple-choice items; and (3) to provide individual student test scores, as well as school- and district-wide scores, as mandated by the authorizing legislation.

California administered the CLAS statewide in 1993 and 1994, assessing students with a combination of multiple-choice items and open-ended questions that asked students to respond to literary passages or provide written or graphical explanations of how they arrived at a particular mathematics solution. Student scores fell into one of six performance levels in each of the four subject areas. While the CLAS featured only an external summative assessment in the two years it was administered, it was designed to eventually feature curriculum-embedded assessments and student performance portfolios that would compile individual student work over time and contribute to a more comprehensive measure of what students knew and were able to do.

Shortly after the first CLAS administration in 1993, opposition emerged around controversial reading texts and open-ended item topics that critics charged were invasive of students' thoughts and feelings. The criticism mounted as children who traditionally did well on the state's standardized tests received substantially lower scores on the CLAS (Kirst & Mazzeo, 1996; McDonnell, 1997). At the same time, a confluence of technical issues raised concerns about the quality and appropriateness of the assessment and its continued viability. Problems included large sampling errors, inability to provide individual student test scores due to the test's matrix sampling approach, a mismanaged administration

process, and cost constraints that prevented the state from grading all of the tests (Cronbach, Bradburn, & Horvitz, 1994). Political factors—including the lack of a constituency supporting the CLAS, limited public engagement and communication, and conflicting stakeholder priorities—enabled this criticism to gain momentum (Kirst & Mazzeo, 1996; McDonnell, 1997).

In response, the CDE made several modifications to the 1994 CLAS administration—such as incorporating the public into the teams developing the assessment, prohibiting questions that addressed moral or religious beliefs, and requiring the circulation of sample tests prior to administration—but these actions came too late to stem the growing opposition (Cohen & Hill, 2001; McDonnell, 1997). In 1994, Governor Wilson vetoed legislation that would have provided funding to reauthorize the assessment system, arguing that it departed from its original goal of producing individual student scores. In doing so, he effectively ended the CLAS after only two administrations.

Framing the Brief

Much has changed in the last two decades. California educators and the assessment field in general have learned a great deal about the development and implementation of large-scale assessment systems. Nevertheless, ongoing discussions and collaborative activities among California districts already implementing the Common Core have repeatedly led district leaders and researchers to identify similarities between the current environment and that of the CLAS in the early 1990s. (See Table 1 for a comparison of the CLAS and the SBAC system currently under development.) The goal of this brief is to identify lessons for district leaders as they wrestle with the challenge of developing and implementing student assessment systems around the Common Core. (See the text box on page 4 for the data sources that inform this brief.)

Because the brief draws on the experiences from a statewide assessment system and because California is looking ahead to statewide SBAC

Table 1: Comparing CLAS and Smarter Balanced Assessments

Preceding Assessment Content and Format		
	Before CLAS	Before SBAC
<i>Test Name</i>	California Assessment Program (CAP)	California Standards Test (CST)
<i>Years Administered</i>	1972–1990	1998–2014
<i>Standards Alignment</i>	Weak alignment to California Frameworks ³	Aligned to California Content Standards
<i>Grades Tested</i>	3, 6, 8, 10	2–11
<i>Subjects Tested</i>	Reading, mathematics, and writing; content areas of science, history, and literature	ELA for grades 2–11; mathematics for grades 2–7; science for grades 5, 8, and 10; history for grades 8 and 11; plus end-of-course assessments for mathematics, science, and history
<i>Format</i>	Multiple-choice, with open-ended items gradually introduced to 12th grade test	Multiple-choice, with a writing component in ELA for grades 4 and 7
Transition to New Standards and Assessments		
	CLAS	SBAC
<i>New Student Expectations</i>	California Frameworks adopted in the late 1980s and early 1990s "[The] frameworks have several overarching concepts in common including critical thinking and conceptual understanding, problem-solving based on real-life problems, meaning-centered rather than memorization-oriented learning opportunities, active learning which makes connections to student's experiences, collaborative learning and interdisciplinary learning" (Carlos & Kirst, 1997).	Common Core State Standards adopted in August 2010 "The [Common Core] standards are designed to be robust and relevant to the real world, reflecting the knowledge and skills that our young people need for success in college and careers.... [They] include rigorous content and application of knowledge through high-order skills" (Common Core State Standards Initiative, 2012).
<i>New State Assessment</i>	CLAS put into law through Senate Bill 662 in 1991 "Educators and testing experts looked to the [CLAS] as an exemplar for new forms of more authentic student assessment...The tests were tied to state curriculum frameworks that stressed the ability to understand underlying principles and to apply them to real-world problems, as well as to master subject matter knowledge" (McDonnell, 1997, p. 5–6).	California became a governing member of SBAC in June 2011 "Smarter Balanced assessments will go beyond multiple-choice questions to include extended response and technology enhanced items, as well as performance tasks that allow students to demonstrate critical-thinking and problem-solving skills. Performance tasks challenge students to apply their knowledge and skills to respond to complex real-world problems" (Smarter Balanced Assessment Consortium, 2012).
New Assessment Content and Format		
	CLAS	SBAC
<i>Standards Alignment</i>	Aligned to California Frameworks	Aligned to Common Core State Standards
<i>Years Administered</i>	1993–1994	Anticipated in 2014–15
<i>Grades Tested</i>	4, 8, 10	3–8, 11
<i>Subjects Tested</i>	Reading, writing, mathematics, science, and social studies	ELA and mathematics
<i>Format</i>	Multiple-choice, constructed response, and performance tasks Fixed form, paper-and-pencil testing	Multiple-choice, constructed response, and performance tasks Fixed form and computer adaptive testing (with paper-and-pencil testing available through 2016–17)
<i>Unit of Measurement</i>	Schools (employing matrix sampling)	Individual students
Assessment Development		
	CLAS	SBAC
<i>Governance</i>	Managed by the CDE	Consortium of 22 states as governing members
<i>Item Development</i>	Items developed within the CDE	Item development subcontracted to CTB/McGraw Hill, who will lead a team of assessment experts

Sources: Cohen & Hill, 2001; Wilson, 2003; <http://www.smarterbalanced.org/>

adoption in 2014–15, many lessons will also apply to the state level (and may point to areas in which district leaders will want to push for an expanded role for the CDE). Nevertheless, effective use of assessment relies fundamentally on high-quality tools and deep practitioner knowledge, and individuals at the local level play an essential role in developing these. In fact, many districts across California and the country are already engaged in developing formative assessment tools tied to the Common Core.

In this brief, we emphasize the importance of assessment not as an external accountability tool,

but as an essential component of implementing the Common Core. As one former policymaker emphasized, “The lesson I would like people to concentrate on is that instruction should be the center of any effort to improve schools... Assessment becomes one of the tools by which you help this effort to continue to improve.” The brief will be most effective if read as a set of considerations for improving the ways that educators at all levels can respond to evidence of and develop better approaches to improving student learning.

Data Sources

To better understand the CLAS experience, we drew on the books and articles, technical documentation, and news accounts available from the time period. In the spring of 2012, we also interviewed policymakers, assessment experts, practitioners, and researchers who had been involved with or had closely observed the CLAS efforts. These interviews not only allowed us to develop a fuller understanding of what happened with the CLAS, but also to identify lessons that may be relevant to current assessment efforts. Where consensus appeared to exist about the ways in which CLAS unfolded, we report about the experience without attribution. When perspectives are not uniform, however, or when a point of view is particular to a specific individual, we provide more detail about where that perspective comes from to help provide context for that point of view. All quotes in the brief come from our interviews unless specifically attributed to another source.

Considerations for Districts

The CLAS experience points to four key lessons for districts as they adopt new approaches to assessment: (1) make immediate and sustained efforts to build teacher capacity; (2) anticipate and respond to potential questions and controversy surrounding assessment content and format; (3) understand and address technical and administrative challenges around assessment development, administration, and scoring; and (4) build support for new instructional and assessment efforts through a clear strategy of public engagement. To provide context for each of these lessons, we share some additional background about the CLAS experience, followed by implications for district practice today.

Teacher Capacity Building and Engagement

The CLAS and the student expectations from which it grew called for teachers to approach

instruction in new ways. A range of effective capacity-building activities that occurred during the CLAS, though limited in scope, highlight ways in which districts might prepare teachers to meet the demands of the Common Core standards and Common Core–based assessments.

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Experience with the CLAS

The CDE explicitly designed the CLAS as one component of a state education system that aligned expectations of students, curricular materials, and assessments. The California Frameworks directed teachers to teach in new

ways, and the CDE sought to support this shift through integrated efforts across the system. Indeed, the CLAS incorporated performance tasks in part as a reflection of the belief that the levels of conceptual understanding called for in the California Frameworks could not be adequately captured through traditional multiple-choice items.

In recognition of the improved teacher capacity that new expectations required, several efforts emerged to develop deeper levels of teacher understanding about expectations for students and the associated assessment. Before the CLAS was officially implemented, the CDE gave teachers at a sample of schools the opportunity to pilot items and learn about the kind of student performance the assessment demanded. Then, following the first CLAS administration in spring 1993, the CDE brought teachers to Sacramento to spend a week during the summer scoring open-ended CLAS items, conferring with one another and with content experts about student responses and their scores for those responses. “Many teachers reported that it was the best professional development they ever had....Such learning about CLAS exposed teachers to the mathematics contained in the framework, to students’ responses to challenging mathematics problems, and by inference, to the instruction that might prepare students to deal thoughtfully with such problems” (Cohen & Hill, 2001, p. 102–103). Outside groups, including the state’s subject matter projects,⁴ offered additional professional development opportunities that similarly let teachers examine sample tests, develop rubrics, and score student work.

Even independent of these formal learning opportunities, the assessment itself often drove self-reflection for teachers about their instructional practice. According to one teacher:

The CLAS test...It was a shock to me. They [students] really did fall apart. I was like, ‘Oh! What do I do?’ And I realized, ‘I need to look at mathematics differently.’ You know, I really was doing it the way I had been taught so many years before. I mean, it was so dated. And I began last year, because of the CLAS test the year before, looking to see what other kinds of things were available. (Perry, 1996, p. 87)

In our interviews this spring, a former teacher voiced a similar sentiment, saying that the CLAS

enabled her to better understand what students were expected to learn: “It forced me to better align my instruction to what students would see on the test....It was the first time I could make sense of the standards that were being assessed. I linked that to my instruction.” In other words, the CLAS assessment became a way of demonstrating to teachers what the California Frameworks were asking of students, and in many cases became a powerful vehicle for teacher learning and instructional change.

“[Administering the CLAS] was the first time I could make sense of the standards that were being assessed.”

Despite their promise, organized professional learning opportunities were unfortunately limited in scope and impact. Researchers found that only 10 percent of teachers in the state participated in any of the formal learning opportunities (Cohen & Hill, 2001). The CDE had few resources to provide scoring and other learning opportunities to teachers. And while external groups often provided valuable supports, only a limited number of teachers participated, and opportunities were fragmented. Activities varied widely across districts and schools, with little coordination among districts or between districts and the state.

Interview responses suggest that as a result, teachers often lacked deep levels of understanding of what they and their students were being asked to do and how it was different than before. As one researcher explained, “So few teachers understood the purpose of the assessment....Academics saw it as an exemplar, but on the ground—both politically and in practice—that wasn’t what it looked like.”

At the same time, a lack of teacher engagement around the CLAS fed skepticism about its sustainability and impeded full buy-in to the new assessment system. One former district leader described the reaction by saying, “The local schools were compliant about it. There was not a feeling that this had the legs to keep standing. There was a feeling that this was really going to collapse.” Another educator who taught high school math at the time echoed this sentiment: “The large majority of the teachers in our system

thought this was too hard for kids and it would go away pretty quick. ‘Let’s weather the storm and it will be gone pretty soon.’ They were right.”

Lessons for the Common Core

Like the California Frameworks of the early 1990s, the Common Core demands more from students, and therefore requires teachers to teach in new ways. A set of fewer standards seeks to enable and encourage teachers to explore material in greater depth than the current “mile-wide, inch-deep” California standards, with an increased focus on conceptual understanding and critical thinking. For example, words like “apply,” “interpret,” and “understand,” used throughout the Common Core, encourage a focus on sense-making and application that extends beyond the answer-getting orientation implied by words like “solve” and “identify,” which appear frequently in the California mathematics standards.

Other more specific changes—including an increased focus on informational texts in ELA and a greater emphasis on fractions in mathematics—also have implications for classroom instruction. The Common Core’s strong emphasis on college preparation, as well as a consideration of the growing research base on student expectations and international standards, are a departure from the often politically charged mathematics and reading wars⁵ from which the California Frameworks emerged. Nevertheless, both ask teachers to more deeply understand the content their students are being asked to master, and in many cases to modify their instruction to enable student success.

The challenge facing educators across the state is therefore not just adapting to a new test, but responding to the multiple ways in which the Common Core calls for improved instruction. When assessment items capture student mastery of the goals identified through standards, they can help teachers more deeply understand what those goals are, and can therefore act as a catalyst for building teacher capacity and changing instruction. Moreover, student responses to assessment items provide teachers with feedback on student performance that can inform their instructional decisions.

Although the professional development around the CLAS appeared to be effective at building

understanding and changing practice for teachers who participated, it was limited in scope, and learning opportunities on a large scale are unlikely to come from outside sources today. If teachers are to develop the capacity they need to enable students to master the Common Core, the responsibility falls largely on local school districts, which must integrate assessment (including formative, interim, and summative) into other efforts to improve instruction.

Designing Assessments to Appropriately Capture Student Learning

A movement to a new assessment system offers an opportunity to raise some fundamental questions about assessment. For example, the standards movement has brought us closer to consistency in what is taught across classrooms, but standards leave substantial room for variation. How closely do assessments and curriculum (not just standards) need to be tied? And for what purposes? When large-scale assessments test what students have learned in a high-stakes environment, but variation exists across classrooms in what gets taught, the implications for accountability must be addressed.

Also, the current mode of American summative assessments dictates that students and teachers not know assessment content in advance. However, this philosophy regarding high-stakes assessments is not universally shared. What should teachers and students know about what is going to be tested for assessments to be valid and fair?

Overall, the assessment climate that has emerged under No Child Left Behind reflects particular decisions and points of view about how assessment should operate. Although this brief is agnostic about these specific questions, the transition to the Common Core offers an opportunity to question these assumptions and proactively pursue assessment systems that most appropriately meet the needs of capturing and improving student learning.

Offer opportunities to develop performance tasks and review student work. Such opportunities can provide valuable avenues for teachers to understand what the Common Core demands of students, while simultaneously revealing important gaps in student knowledge. As schools prepare for the SBAC assessments in 2014–15, locally developed assessment items can also show students the ways in which they will need to demonstrate their knowledge on state tests. A common criticism of the CST is that its exclusively multiple-choice format encourages “teaching to the test” in a way that fails to promote deep understanding and critical thinking. If high-quality constructed response items and performance tasks can capture these deeper levels of understanding, however, investing in them as an instructional strategy can drive instructional improvement. As one assessment expert advised, “Teachers might want to change, but they don’t know how to change, and they don’t have the skills to change. I would push teacher development and teaching to good tests.”

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Capitalize on the efforts of other districts and states. Even in the absence of teachers developing items themselves, opportunities exist to leverage work already being done in districts across the country, including several in California. Educators are developing instructional modules and performance tasks that can aid teachers in better instructing and assessing students around the Common Core. In an environment of limited resources, the wide use of the Common Core enables districts to capitalize on the power of collaboration and learning from early implementers—even when the resources do not exist for all teachers to develop the tools themselves. One potential resource is the SBAC website itself, which—when fully operational—will feature a digital library of videos, articles, instructional tasks, and other resources that will be vetted for quality prior to being posted.

Encourage teacher buy-in by demonstrating commitment to Common Core efforts. In addition to capacity-building efforts, districts can encourage teacher engagement by voicing a strong commitment to the Common Core and its associated means of improving instruction. Strong messaging throughout the system, accompanied by sustained efforts to train and support teachers, provide evidence of such a commitment, and can counteract the “this too shall pass” mentality that characterized the CLAS experience and can undermine efforts for change.

Begin efforts now to adequately prepare for new state assessments. Finally, given the rapid implementation timeline and the time required for adult learning to take place, capacity-building efforts are likely to be most effective if begun now—even in the absence of state-adopted instructional materials or summative tests. One individual recalled her experience as a classroom teacher during the CLAS by saying, “It felt like it came on very fast. There was not a lot of scaling up of time—ramp-up time—or professional development around it. We missed some major opportunities to impact pedagogy around linking assessment and instruction. I see us headed down the same dangerous path. 2014–15 is literally tomorrow.” A current district leader was blunter in his assessment: “If you haven’t started implementing the Common Core now, it’s too late.” The message, then, is not only of building capacity, but building capacity as quickly as possible to ensure teachers are prepared when new state assessments begin.

Assessment Content and Format

The second set of lessons builds upon the CLAS experience with assessment content and the performance task format. With the SBAC assessments expected in 2014–15, districts can draw on the CLAS experience to better anticipate and respond to potential criticism of a new set of tests.

Experience with the CLAS

Controversial item content sparked the first criticisms of the CLAS. Soon after the first CLAS administration in 1993, the assessment came under attack for the texts selected for reading

comprehension items and the questions asked for the open-ended and essay items. Examples of controversial texts included Dick Gregory's "Not Poor, Just Broke," which critics argued perpetuated negative stereotypes of families on welfare, and Alice Walker's "Roselily," which critics believed challenged religious beliefs in describing a black woman's thoughts during a marriage ceremony to a Black Muslim.

Critics also objected to open-ended questions that asked for students' opinions on perceived personal matters, such as family relationships (e.g., "Why do you think some teenagers and their parents have problems communicating?") or students' psyches (e.g., asking students to fill in a diagram of a head with symbols, images, or words describing what a character from a passage was thinking) (Hanson, 2004; McDonnell, 1997). As one researcher recalled recently, the fact that the California Frameworks asked students to approach and demonstrate their learning in new ways highlighted ideological differences, with some implicitly taking the position that "if school doesn't look like it did when I was a kid, then it's not school."

As rumors and concerns about the controversial test content spread, the CDE initially refused to release test items for public review due to a lack of money to create new (expensive) items to replace the released ones. This unwillingness to share items only heightened the fears and allowed misinformed criticism—including complaints about items that had never been included to begin with—to go unchallenged. A former superintendent recalled the public's concerns: "Why is this so shrouded in secrecy?...Ah, they have something to hide."

Researchers suggest that assessment items for the CLAS were developed among like-minded educators at the CDE without any public vetting, consideration of other perspectives, or anticipation of critics' resistance. The product of an environment that produced the reading and math wars, the CLAS may have served in some cases as a back door to introduce materials consistent with one side of a polarizing debate. Without engaging multiple perspectives in the selection of texts and development of test items, the CDE unnecessarily included controversial content in the assessment. When opposition emerged, the CDE

was unable to anticipate criticisms and respond quickly enough to put them to rest.

Apart from controversial item *content*, the novel item *format* generated both positive and negative reactions in the field and general public. The performance tasks embedded in the assessment asked students to express their knowledge and understanding by performing a task, rather than selecting an answer from a ready-made list. Interviewees and researchers described the CLAS performance tasks as a more comprehensive method of assessing students' knowledge and skills. Furthermore, the shift beyond the exclusive use of multiple-choice items allowed teachers to get a better sense of how their students learn. As a former mathematics teacher explained,

There was a depth and richness to the performance tasks that allowed kids to go deep and demonstrate their mathematical knowledge, and for teachers to get a better sense of how deep you can go with mathematics tasks that are beyond skill-based computation.

Despite the CLAS's attempts to encourage high-order thinking and authentically capture student learning, critics questioned the quality of the performance tasks. Some argued that the performance tasks came at the expense of basic computational skills (McDonnell, 1997). Controversy also emerged around whether the performance tasks rewarded students for learning content or for explaining their answers. One journalist described a sample item from the 1994 test, along with two scored student responses, released by the CDE to teachers around the state. The mathematics task asked students to (1) report how many days it would take to plant a forest and (2) write a convincing letter to the principal explaining the plan. The two students' responses were compared and the student who got the wrong answer—but wrote a more convincing letter to the principal—received a higher score than the student who got the right answer, but failed to address the principal in the letter and only provided a brief explanation of his answer. The journalist charged that the item "demonstrates the major problem with the new-new math: it's real short on math" (Saunders, 1994).

This example sheds light on the challenge of developing rubrics to score performance tasks in a way that values communication skills, but

appropriately rewards students for demonstrating the skills, knowledge, and understanding a given task is designed to capture. Although performance tasks may have represented a move toward authenticity, critics argued that the effort devalued mastery of basic skills and therefore failed to measure the right thing.

Lessons for the Common Core

While the vast majority of teachers will not be involved in SBAC item development, they will be creating classroom based tasks that should reflect the rigor of the standards. Districts will play an important role in this process, as well as messaging about the content and format of new assessments.

Commit to transparency and clear messaging. Districts can help avoid unnecessary controversy around assessment content by making shifts in the assessment content and overall implementation process as transparent as possible. Furthermore, engagement of multiple perspectives—including those of the general community—before implementation of the SBAC assessments may help diminish unanticipated criticism. As one researcher noted, “even if there are no culture wars anymore, there has to be transparency so there are no surprises.” By understanding initial reactions to the shifts required by the Common Core and the new assessment, districts can respond proactively to alleviate concerns and solicit the support of various stakeholders. (We address these points again as part of a larger discussion of public engagement later in the brief.)

Prepare students and the public for performance tasks and constructed response items. With the goal of producing college- and career-ready students, the Common Core focuses on greater coherence, more focus, and deeper understanding. It can—if implemented successfully—enable teachers to explore topics in greater depth to achieve greater content mastery. In order to assess students’ mastery of these new standards, the new assessments will supplement multiple-choice items with constructed responses and performance tasks that ask students to actively demonstrate what they know and can do. For example, the seventh grade mathematics

standards call for students to “Analyze proportional relationships and use them to solve real-world and mathematical problems” (Common Core State Standards Initiative, n.d., p. 48). In addition, the skills of reasoning and modeling are included as “Standards for Mathematical Practice” (p. 7).

A sample performance task adapted from the Mathematics Assessment Project (<http://map.mathshell.org>), which is developing assessment tools to support schools in implementing the Common Core, demonstrates how students might be asked to demonstrate their understanding of these standards:

The King asks Archimedes if his crown is made from pure gold. He knows that the crown is either pure gold or it may have some silver in it. Archimedes figures out that the volume of the crown is 125 cm^3 and that its mass is 1.8 kilograms. He also knows that 1 kilogram of gold has a volume of about 50 cm^3 and 1 kilogram of silver has a volume of about 100 cm^3 .

1. *Explain how Archimedes can determine whether or not the crown is pure gold.*
2. *If the crown is not pure gold, then how many kilograms of silver are in the crown? Show all your work.*

While traditional standardized tests often address proportional relationships, the Common Core calls for reasoning and modeling skills that are difficult—if not impossible—to assess with multiple-choice items alone; students must apply and explain their knowledge and understanding, rather than simply produce a right answer.

Districts can communicate clearly about the value of performance tasks by sharing examples of standards and tasks aligned to the standards with teachers, parents, and community members. They can also emphasize that rigorous performance tasks have the potential to provide a more thorough window into the depth of student understanding.

Ensure high quality and rigor. As became evident with the CLAS, assessment developers must ensure that in their efforts to create more authentic measures of student learning, the tasks also reflect the high level of rigor demanded in the

new standards. In other words, the performance tasks must contain high-quality questions that accurately measure students' command of the knowledge and skills embedded in the standards. As discussed earlier, the development and use of performance tasks can provide valuable professional development for teachers, giving them a more complete picture of their students' performance, while preparing students for upcoming summative assessments that include performance tasks. While local assessments may not generate the same level of publicity as the SBAC assessments, district and school leaders must nevertheless attend to issues of quality as they guide teachers in the development of new items.

District and school staff must be well versed in the assessment's purpose and potential benefits in order to anticipate questions, concerns, and critiques.

Anticipate and prepare for potential controversy. The CLAS experience and emerging reactions to the Common Core suggest that some level of criticism about item content may materialize. However, the nature and focus of such opposition will likely not be clear until after the test is released and the public has a chance to react. Because of this, districts and school staff must be well versed in the assessment's purpose and potential benefits in order to anticipate questions, concerns, and critiques, as they are likely to be the first point of contact with families and community members seeking clarity about the assessments. Proactive responses that acknowledge and address concerns can help to build public confidence in a new system and stem any controversy that arises.

Technical and Administrative Challenges

A third set of issues relates to the technical and administrative challenges that surrounded the CLAS. While these challenges materialized primarily at the state level, the experience raises important lessons for districts, who must manage responses to these challenges at the local level.

Experience with the CLAS

Subsequent to initial concerns about the content of the test itself, scoring and administrative challenges related to the CLAS emerged. In the wake of the 1993 CLAS administration, the CDE chose to score only 42 percent of the open-ended items in reading, writing, and mathematics before releasing results for each school due to limited funding for the expensive scoring process (Wilson, 2003). Concerns about this decision, fueled by communities of parents upset that their traditionally high performing students received relatively low school-level scores, prompted questions about the accuracy of the scores.

To address the growing concerns, the CDE appointed a panel of three testing experts, led by Lee Cronbach of Stanford University, to examine the CLAS in detail. The panel's report found that the sampling and scoring decisions produced large standard errors that undermined both the validity and reliability of the assessment. Among the major technical issues was the fact that the scoring sample was far smaller than what was originally planned and therefore not sufficient to provide precise school-level measures of student performance. To make the situation worse, many parents and teachers were expecting all of the tests to be graded. As the report stated, "CLAS laid a trap for itself when, in the public information packet intended to develop understanding of the system, it omitted mention of its intent to score only a fraction of booklets" (Cronbach, Bradburn, & Horvitz, 1994). The panel concluded that the sampling of items to score, given cost constraints, was done "in a sensible way," and that even scoring all of the tests within a school would not have resolved the unacceptably large standard errors. Nevertheless, public perceptions of the issue contributed to a growing distrust of the CLAS.

Not only did California not allocate enough money to score all of the performance assessments, it lacked the proper infrastructure to administer and score the assessments without substantial logistical mistakes. Lost test materials (including test booklets and multiple-choice sheets) and a breakdown in the management of testing documents (e.g., some tests lacked the barcode that linked student to school) amplified these troubles. Cronbach's committee stressed that

these technical and operational flaws “probably would have been foreseen by a more mature organization, having more experience in management of complex surveys and giving more thorough attention to technical planning” (Cronbach, Bradburn, & Horvitz, 1994). These operational and technical issues further tarnished the public image of the CLAS and only served to fuel criticism of the assessment system.

Lessons for the Common Core

Anticipate and plan for technical challenges.

Two decades of experience with standards-based reform and testing have enabled the field to anticipate and address many of the specific technical issues that contributed to the downfall of the CLAS. Nevertheless, the CLAS experience suggests that with a novel large-scale assessment system, problems associated with administration and scoring are likely to arise and will be difficult to predict. Districts and schools will need to anticipate and proactively identify and respond to these challenges as they emerge.

Among the potential issues is the challenge of sufficiently sampling from the domain. Computer adaptive testing helps address this issue by incorporating a larger bank of test items.

Nevertheless, the limited number of performance tasks anticipated for the SBAC assessments pose a challenge for sufficiently assessing the breadth of the Common Core at the student level. Test developers and implementers at the state and local levels must be vigilant about identifying and responding to any potential threat to the assessment's validity and reliability. To this end, the multi-state consortium participating in the SBAC provides an opportunity to leverage resources and share expertise gleaned from previous assessment efforts of the governing and advisory states.

While the field of assessment development has more extensive experience with large-scale performance assessments and with computer adaptive testing than in the early 1990s, districts may not have much experience in implementing them. Furthermore, early indications suggest that many districts lack the technological capacity for computer-adaptive testing (Kober & Rentner, 2012). If this is the case, technological, logistical, and fiscal challenges of scoring large-scale paper-

and-pencil assessments could reemerge. One former teacher explained current levels of confusion in schools: “There’s no understanding about ‘if you don’t have the technology, is there going to be a paper version?’ There’s no universal understanding of how the assessment is going to roll out. I think that will be an essential step.”

Survey results released from the Center on Education Policy shed light on other technical issues states and districts are anticipating with the new assessment, such as insufficient internet access and bandwidth and insufficient access to state-, district-, or school-level expertise to help with technological problems as the tests are administered (Kober & Rentner, 2012). Districts must be realistic in their planning for assessment around the Common Core, clear about their local plans for administering the SBAC assessments, and proactive in requesting guidance from the state in how to proceed if they lack sufficient technological capacity.

Careful performance task design is essential to ensuring the validity and fairness of testing the English learner population.

Attend to considerations for English learners (ELs).

A particular set of challenges emerges around the assessment of ELs. Given that proficiency in English directly impacts ELs' ability to demonstrate knowledge and skills in English, it is essential to distinguish between language that is and is not related to the assessment content (construct-relevant and construct-irrelevant language, respectively) (Abedi & Sato, 2007). Construct-irrelevant language includes confounding variables unrelated to what is being asked of the students, such as linguistically complex test items or cultural biases in the item construct, that have the potential to adversely influence EL performance. This is especially true for computer-adaptive testing, which could underestimate an EL's content knowledge if he or she answers a question incorrectly due to the construct-irrelevant language (Policy Analysis for California Education & Rennie Center for Education Research & Policy, 2011).

At the same time, the Common Core acknowledges that language demands are inextricably linked to the content students must master. Assessment items *should* therefore include the construct-relevant language students need to demonstrate attainment of the standards. Districts must acknowledge the integral role language plays in the standards as they design their own local assessments and instructional approaches. And in order to ensure that both the standards and the assessments are accessible to all students, districts must provide ELs with the instructional supports and resources necessary to acquire language and engage meaningfully with the standards.

Consideration of construct-relevant versus construct-irrelevant language is particularly important for performance tasks because they rely heavily on language. Performance tasks that include construct-relevant language (and exclude construct-irrelevant language) have the potential to better engage ELs, measure their knowledge and understanding more accurately than multiple-choice tasks, and signal areas of focus for instruction. Some performance tasks may provide the opportunity to show what students know and can do using mediums other than language alone (e.g., a mathematics performance task may include geometric shapes or measurement devices) (Abedi, 2010). In any case, careful performance task design—including linguistic and cultural considerations or modifications—is essential to ensuring the validity and fairness of testing this subpopulation.

Acknowledge and proactively address resource constraints. The use of open source Common Core materials and the opportunity for sharing across districts and states could help districts manage difficult economic conditions and offset the costs of standards implementation. Nevertheless, the resource challenges are real, and districts need to recognize and address them. Resource limitations also provide fodder for criticism, particularly for taxpayers who question whether an expensive transition to new standards and assessments is appropriate in the current fiscal environment. As districts look at the transition and implementation costs, they can benefit from requesting explicit communication from the state about exactly what it will be supporting. In addition, districts can engage in cross-district collaboration

and make use of open-source materials from other locales, which could provide ways to leverage limited resources more effectively.

Politics and Communication

The final set of issues from the CLAS experience concerns the limited information (and sometimes misinformation) available to the public about the CLAS. Within this context of poor communication, the lack of a constituency to support the CLAS through its early years played a substantial role in its demise; this highlights an area in which districts can proactively support assessment efforts around the Common Core.

Experience with the CLAS

The content and technical challenges with the CLAS were substantial, and they impaired the system's ability to meet all of its stated goals. However, as one researcher explained, "the technical challenges...could have been dealt with had there been enough time and leadership." Even the Cronbach report, which identified a host of technical problems with the test, declared, "All the shortcomings of CLAS-1993 can be remedied...CLAS, as it matures, should be able to deliver a highly useful product." The problems were solvable, but the *process* through which the CLAS was developed and introduced enabled these problems to gain traction and ultimately led to the discontinuation of what was a promising assessment system. The need for public engagement stands out as one of the most critical lessons for rolling out new standards and assessment efforts.

Overpromising opened the door for criticism. Early CLAS proponents promised an assessment system that would more deeply capture students' mastery of the knowledge and skills they learned in school, and would provide this information for a variety of stakeholder purposes. Efforts to sell the benefits of the CLAS, however, may not have appropriately acknowledged the technical, operational, and implementation challenges that accompany the introduction of any new large-scale assessment effort. By promising more than they could initially deliver, CLAS developers created a scenario in which important drawbacks were seen not as expected developments in an implementation process, but as fundamental failures of the system.

These failures reinforced central philosophical differences about the goals of the CLAS that existed among the policy leaders charged with developing and sustaining the program. Then Superintendent for Public Instruction Bill Honig extolled the benefits of a system in which the California Frameworks, instructional materials, and assessments were closely aligned. Senator Gary Hart, chair of the Senate Education Committee, sought to hold schools accountable for their results. Governor Pete Wilson wanted a system that could produce individual student scores—an explicit provision in the authorizing legislation for the CLAS; when the matrix-sampled CLAS assessment could not provide them in the first two years, Wilson's support evaporated. Honig's departure from office by the time of the controversy meant the loss of one of the CLAS's most vocal leaders.

All of these factors meant that no political coalition existed to ensure the continuation of the CLAS. As one former policymaker explained, "There was no one around to advocate for it. I think we could have worked it out...It didn't really build the public support for it. As a result, it was politically vulnerable." A researcher who has studied the CLAS effort echoed this sentiment: "Ultimately, there was never a political coalition built around CLAS. It was largely a movement of the education groups and leadership." In this vacuum of support, the governor effectively ended the CLAS in 1994 by vetoing legislation that would have reauthorized its funding.

The clearest message from the CLAS experience is the need to create a constituency of support for the Common Core and its associated assessments.

Lessons for the Common Core

Build a constituency of support across a variety of stakeholders. The clearest message from the CLAS experience is the need to create a constituency of support for the Common Core and its associated assessments. In some ways, the current education environment may make this an easier task than it was in the 1990s. Frustration with the limitations of multiple-choice exams has

grown in the No Child Left Behind era, which may create an enthusiastic response to assessments that feature constructed responses and performance tasks. This may be particularly true for teachers' unions that see benefits to a more authentic means of assessing students. The business community also represents a potential ally, as employers stand to benefit from a better prepared workforce that has mastered the critical thinking skills the Common Core demands.

District leaders should emphasize the role of Common Core efforts in pursuing an agenda of improved equity.

The Common Core itself stands on a fairly wide base of political support, as evidenced by the 45 states that have adopted the new standards. District and state leaders could leverage the strength of that movement in their implementation and assessment efforts. However, it remains unclear whether all Common Core advocates truly understand the content of the standards, or whether their support represents a more tenuous endorsement of vague promises of high expectations and college preparation. Therefore, concentrated efforts to inform and engage the public about both the standards and the new assessments may be critical in ensuring their sustainability.

Educate the public. A concerted public engagement effort can build understanding in advance and answer misinformed criticism before it gains momentum. District leaders can begin by articulating the rationale behind the Common Core and its associated assessments. One potential point of emphasis is the Common Core's fundamental orientation towards helping students prepare for postsecondary success; the levels of cognitive performance required for high-quality performance assessments can reflect the skills needed to succeed in the 21st century economy. As one district administrator emphasized, "If we're going to compete with the world, [this is] what we have to do. It's pretty easy to assess knowledge, but it's a lot harder to assess thinking, and that's something we need to engage in."

An additional point of emphasis relates to the role of Common Core efforts in pursuing an agenda of

improved equity. The students most underserved by the existing education system are those who lack the instructional supports to develop skills they will need for postsecondary success. An instructional system that emphasizes and holds schools accountable for progress in this regard can provide opportunities for all students to build the essential knowledge and skills for study, work, and citizenship after high school.

The time period between now and when SBAC assessments begin in 2014–15 is essential to educating the public about the upcoming changes and the rationale behind them. As one researcher advised, “Most taxpayers don’t have kids in school. It is important they get good information before the rumors start.”

From the outset, communication should emphasize expectations for growth and improvement of new assessment systems, not for perfection.

Establish expectations for imperfection and improvement. A public engagement strategy should seek to mitigate the threat of overpromising. Early communication from the SBAC has trumpeted many potential advantages of a new assessment system over existing state tests, among them computer adaptive testing, computer scoring, and performance assessment items that require students to demonstrate their learning more completely than with multiple-choice items alone. However, overselling these advantages opens the door for criticism. As one researcher explained, “As happened with CLAS, we are implementing a new assessment before the technology is perfected.”

Assessment experts we spoke to advised slowing the process and being realistic about the time it takes to build a proper assessment system. This perspective might lead the state to reconsider its current timeline for implementation. At the very least, it should lead to clear communication to the field and the public about the implementation timeline, including general acknowledgement about the time required to navigate unexpected challenges. As one former policymaker emphasized, “You aren’t going to do it right the first time. You will have to keep talking about it.” From

the outset, communication should emphasize expectations for growth and improvement, not for perfection.

Use school leaders and teachers as vehicles for communication. Districts should pay careful attention to public concerns and respond proactively to help mitigate any misunderstanding. To this end, principal and teacher exposure to, training around, and opportunities to work with the new standards are essential to building the knowledge these individuals will need to serve as conduits to the larger community. Schools are the first places that parents and other community members will turn to with questions, yet as one researcher said in describing the CLAS experience, “It struck me that there was so little local knowledge on the ground on the part of administrators and teachers, so when the parents questioned the test, they couldn’t answer the questions.”

Anticipate, identify, and respond to criticism. As was true during the CLAS, traditional perspectives regarding curriculum, instruction, and assessment remain strong among many individuals, despite changes in the education landscape. Although the Common Core is characterized by a strong emphasis on its research and evidence base, which helps to de-politicize the process, well-networked opposition groups exist, and more could emerge. In California, for example, some critics emphasize the current California standards’ high ratings for rigor⁶ and charge that the Common Core waters down student expectations. In addition, the CDE has not provided a clear answer about if and how it will address the additional standards the state’s Academic Standards Content Commission added to the Common Core in ELA and mathematics prior to the new standards’ adoption in August 2010. Criticism could emerge if the state’s summative assessments do not incorporate these standards.

Therefore, in addition to proactive efforts to educate the public about the Common Core and its associated assessments, district leaders should also anticipate and respond to criticism that emerges when SBAC testing actually begins. Just as with the CLAS, parents in affluent communities accustomed to high test scores may see performance drop as students react to a new set of demands, leading the parents to question why the

change in assessment is necessary. This reaction could also emerge in traditionally low performing schools, where educators have responded to an environment of high-stakes accountability by emphasizing test-taking skills for multiple-choice assessments. In addition, the lack of public familiarity with reform-oriented ideas often generates heightened levels of scrutiny.

Educators at all levels should be familiar with and emphasize the research pertaining to new efforts

that include performance tasks, computer scoring, and other anticipated features of the SBAC assessments. Finally, clear articulation of the rationale for transitioning to the Common Core can help address concerns raised by groups that oppose the new standards. By closely monitoring public reactions, districts can correct misconceptions, resolve technical flaws, and articulate the rationale behind their efforts to improve instruction and student learning.

Considerations for the State

Local districts will play a critical role in positioning new instructional and assessment efforts for success. However, some issues are best addressed at the state level.

From an assessment development perspective, California is actively involved as a governing member of the SBAC, an avenue through which it works to ensure a system that meets high quality standards and California's needs. From an implementation perspective, the CDE occupies a unique role in its ability to allocate funding and to develop systems that ensure coherence and alignment with state goals and expectations. The CDE may therefore best provide support for local Common Core implementation and assessment efforts by funding and facilitating capacity-building efforts and ensuring that the proper infrastructure is in place for a new assessment system. Constraints imposed by the ongoing fiscal crisis, combined with other political or administrative barriers, may mean that this ideal state role may simply not be feasible at this time. Even in the absence of these efforts, however, the CDE can play a critical role in enabling the success of new assessment approaches.

Provide a Clear Signal of Direction and Ongoing Support

Limited information about the state's Common Core efforts threatens at best to create confusion in the field, and at worst to undermine implementation efforts by encouraging a "this too shall pass" mentality among educators at the local level. While web pages hosted by the CDE provide background information and regular updates on

CDE Resources

For the latest information from the CDE about the work of the Smarter Balanced Assessment Consortium, visit <http://www.cde.ca.gov/ta/tq/sa/smarterbalanced.asp>

Interested parties can also sign up to receive weekly email updates from the CDE by sending a blank email to subscribe-sbac@mlist.cde.ca.gov

the SBAC system, interview responses suggest that this information is not yet widely disseminated to or understood by the field of educators in the state, and leaves many important questions unanswered. For example, how do the SBAC and the CDE plan to incorporate the additional content standards adopted by the State Board of Education into the state's summative assessment? How does the state plan to assess students in science, social studies, and the arts? Perhaps of greatest concern to districts and schools, how will the state's accountability system incorporate the new assessments, and what accommodations will be made for a transition to the new system? To better position the entire state to prepare for and implement a range of efforts around the Common Core, the state can articulate and demonstrate an ongoing plan through funding and policy commitments and through a communications strategy that make these clear to educators at the local level.

Engage the Field and the Public

Just as local public engagement efforts can help build awareness of and support for new assessment efforts, the CDE can play an important role in coordinating similar efforts statewide. By clearly communicating the scope and timeline of new assessment around the Common Core, the state can help build public awareness around the new efforts. By articulating the benefits of the Common Core and its associated assessments, particularly the ways in which they might enable California students to be competitive in today's economy (while also advancing an equity agenda for the state), the state can help build the supportive constituency that was sorely lacking during the CLAS experience. A clear media strategy is an important component for both of these steps. The CDE might also mobilize other influential stakeholders at the state level (e.g., the California Business Roundtable and California Chamber of Commerce). Finally, the CDE can support districts' engagement efforts by providing guidance for interacting with the public. As one researcher suggested, "[districts] can demand from the state that they have full information about the kinds of questions that are going to be asked at their level....[With the CLAS] the state was not giving local districts enough information and support."

Pursue a Technically Sound Assessment System

Many of the flaws associated with the CLAS were technical in nature and fell under the purview of assessment developers at the CDE, not educators at the local level. In its role as an SBAC governing member, the state should therefore ensure that assessment development efforts attend to issues of quality and respond proactively to potential pitfalls. These efforts could range from a review of item content—ensuring, for example, that item developers invite reviews from multiple stakeholders to avoid the unnecessary inclusion of controversial items—to procedures around sampling and scoring—including drawing on the knowledge and experience of state systems and large-scale performance systems.⁷ They will also need to address challenges that have become more visible since the time of the CLAS, such as

ensuring accessibility for ELs and students with disabilities. A new assessment system will necessarily experience some hiccups, but the CDE can help minimize these by sharing and addressing its own past challenges.

Facilitate the Expansion of Good Practice

California districts are already engaged in Common Core implementation efforts, including the development of high-quality local assessments and teacher capacity that will enable teachers to use assessment to better inform their instruction. These efforts risk being ignored or taking place in isolation, where individuals in different contexts reinvent the wheel or fail to learn important lessons from their peers. The CDE can play a valuable role in serving as a clearinghouse for materials and resources and in legitimizing the efforts already underway in many districts statewide; the SBAC digital library may represent one component of this effort. The state can enhance this role by expanding beyond local exemplars to identify lessons from states and countries with a long history with performance assessments. Finally, the CDE can encourage and facilitate the expansion of cross-district collaboration as a means of generating and sharing knowledge and ideas.

Work Collaboratively with Districts to Identify and Respond to Local Needs

Interview responses suggest that the level of information flowing between the CDE and districts to date has left many unanswered questions regarding the direction of Common Core implementation and assessment efforts. Districts may best elicit what they need from the state by communicating their questions and concerns clearly, particularly regarding issues that the state is best positioned to address. Likewise, the state might best position itself to support local implementation by providing specific venues for collecting and responding to these concerns. Looking ahead to a process in which state and local implementation activities alike will be essential to success, expanding communication and responsiveness between the two is critical.

Conclusion

As California approaches this new system of academic standards, instruction, and assessment, it enters familiar territory. The use of multiple modes of assessment (including performance tasks), tight alignment between assessments and expectations for student learning, and an emphasis on assessment for formative (as well as summative) purposes all mirror the state's priorities as it transitioned to the CLAS in the early 1990s. Technical and political challenges ultimately led to the CLAS's termination after only two administrations, and promising developments in assessment and professional development failed to impact policy and practice on a deep and lasting level. By examining the CLAS experience, districts across the state can build on promising practices from two decades ago while avoiding some of the pitfalls that undermined the CLAS effort. Specifically, districts can (1) attend to immediate

and sustained efforts at capacity building; (2) anticipate and respond to potential controversy surrounding assessment content and format; (3) understand (and push the state to proactively address) technical and administrative challenges around assessment development, administration, and scoring; and (4) build a constituency of support for new instructional and assessment efforts through a clear strategy of public engagement. The Common Core holds tremendous promise as a tool to better prepare students for success after high school graduation. By acknowledging the critical role of assessment in capturing student learning and informing instructional decisions, and positioning themselves to develop and implement assessments effectively, districts can best position themselves to fulfill this promise for students.

Endnotes

¹ SBAC defines performance tasks as coherently connected questions and activities that challenge students to apply their knowledge and skills to complex, real-world problems. Going beyond traditional test items, these activities attempt to accurately assess students' depth of understanding, writing and research skills, and complex analysis (2012).

² The California Frameworks, adopted in the late 1980s and early 1990s and updated several times since, outline the knowledge and skills students are expected to learn in each core subject area, with an emphasis on high-order thinking, real-world problem solving, and active and meaning-centered learning opportunities (Carlos & Kirst, 1997).

³ See McDonnell (1997) for discussion of the lack of alignment between CAP and the state frameworks.

⁴ The California legislature established the California Subject Matter Projects in 1989 as a structure for providing professional development to teachers. The enterprise built on the strengths of the California Writing Project, a statewide professional development network that serves teachers from all disciplines and grade levels, and featured teachers leading other teachers in discipline-specific and grade-level-specific activities explicitly connected to student learning.

⁵ These curriculum wars of the 1990s consisted of publically charged debates between "educational traditionalists" and "educational progressives" over mathematics and reading education, instruction, and curricula. Accounts of the curriculum wars may overstate the degree to which educators actually adopted polarized positions on one side of the debate or the other, but generally speaking, educational traditionalists prioritized teacher-directed instruction and a focus on basic skills, while education progressives emphasized students and teachers working together with a focus on conceptual understanding of academic content.

⁶ Benchmarking studies that have rated California standards highly include the following: Carmichael, S. M., Martino, G., Porter-Magee, K., & Wilson, W.S., 2010; Heather, R., Sonstelie, J., Reinhard, R., & Heng, S., 2003; Finn, C. E., Jr., & Petrilli, M. J., 2000.

⁷ As some examples, the Collegiate Learning Assessment and Cambridge Assessment are performance assessments that have been implemented on a large scale, and states like Connecticut and Massachusetts have had experience incorporating performance assessments into their state testing systems.

References

- Abedi, J. (2010). *Performance assessments for English language learners*. Stanford, CA: Stanford University, Stanford Center for Opportunity Policy in Education. Retrieved from <http://edpolicy.stanford.edu/sites/default/files/publications/performance-assessments-english-language-learners.pdf>
- Abedi, J., & Sato, E. (2007). *Linguistic modification*. Washington, DC: U.S. Department of Education, LEP Partnership. Retrieved from http://www.ncela.gwu.edu/files/uploads/11/abedi_sato.pdf
- Carlos, L., & Kirst, M. (1997, April). *California curriculum policy in the 1990s: "We don't have to be in the front to lead."* San Francisco, CA: WestEd. Retrieved from http://www.wested.org/policy/pubs/full_text/pb_ft_cacuric.htm
- Carmichael, S. M., Martino, G., Porter-Magee, K., & Wilson, W. S. (2010, July). *The state of state standards—and the Common Core—in 2010*. Retrieved from http://www.edexcellencemedia.net/publications/2010/201007_state_education_standards_common_standards/SOSSandCC2010_FullReportFINAL.pdf
- Cohen, D. K., & Hill, H. C. (2001). *Learning policy: When state education reform works*. New Haven, CT: Yale University Press.
- Common Core State Standards Initiative. (2012). *About the standards*. Retrieved from <http://www.corestandards.org/about-the-standards>
- Common Core State Standards Initiative. (n.d.). *Common Core State Standards for mathematics*. Washington, DC: Author. Retrieved from http://corestandards.org/assets/CCSSI_Math%20Standards.pdf
- Cronbach, L. J., Bradburn, N. M., & Horvitz, D. G. (1994, July). *Sampling and statistical procedures used in the California Learning Assessment System* (Report of the Select Committee). Sacramento, CA: California State Department of Education.
- Finn, C. E., Jr. & Petrilli, M. K. (2000). *The state of state standards: 2000*. Washington, DC: Thomas B. Fordham Foundation. Retrieved from <http://www.eric.ed.gov/PDFS/ED439133.pdf>
- Hanson, G. (2004). *Testing the learning curve in California's schools – controversy over California Learning Assessment System that emphasize essays to measure critical thinking rather than testing subject matter*. Farmington Hills, MI: Gale Group. (Original work published 1994). Retrieved from http://findarticles.com/p/articles/mi_m1571/is_n31_v10/ai_15674648/
- Heather, R., Sonstelie, J., Reinhard, R., & Heng, S. (2003). *High expectations, modest means: The challenge facing California's public schools*. San Francisco, CA: Public Policy Institute of California. Retrieved July 30, 2012 from http://www.ppic.org/content/pubs/report/R_1003HRR.pdf
- Kirst, M. W., & Mazzeo, C. (1996). *The rise, fall, and rise of state assessment in California: 1993–1996*. Phi Delta Kappan, 78, 319–323.
- Kober, N., & Rentner, D. S. (2012, January). *Year two of implementing the Common Core State Standards: States' progress and challenges*. Washington, DC: The Center on Education Policy. Retrieved from <http://www.cep-dc.org/displayDocument.cfm?DocumentID=391>

- McDonnell, L. M. (1997, February). *The politics of state testing: Implementing new student assessments* (CSE Technical Report 424). Los Angeles: University of California, National Center for Research on Evaluation, Standards, and Student Testing. Retrieved from <http://cse.ucla.edu/products/reports/TECH424.pdf>
- Perry, R. (1996). *The role of teachers' professional communities in the implementation of California mathematics reform* (Doctoral dissertation, School of Education, Stanford University, 1996).
- Policy Analysis for California Education and Rennie Center for Education Research & Policy. (May 2011). *The road ahead for state assessments*. MA: Rennie Center for Education Research & Policy. Retrieved from http://renniecenter.issuecenter.org/research/listing/road_ahead_for_state_assessments
- Saunders, D. J. (1994, December 23). New-new math blunders on. *The San Francisco Chronicle*, pp. A27.
- Smarter Balanced Assessment Consortium. (2012). *Smarter Balanced assessments*. Retrieved from <http://www.smarterbalanced.org/smarter-balanced-assessments/>
- Wilson, S. M. (2003). *California dreaming: Reforming mathematics education*. New Haven: Yale University Press.

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California Collaborative on District Reform

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The California Collaborative on District Reform, an initiative of the American Institutes for Research, was formed in 2006 to join researchers, practitioners, policymakers, and funders in ongoing, evidence-based dialogue to improve instruction and student learning for all students in California's urban school systems.

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