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CERA
CALIFORNIA EDUCATIONAL RESEARCH ASSOCIATION

Assessment Matters

Quarterly Research & Updates
for California's Public Education

California Educational Research Association

A Note from the President

Shannon E. Coulter

Dear CERA Members,

While California escaped one of the most brutal winters in history, none of us have evaded the intensity of a new season of educational reform sweeping the nation. Rather than resist, California educators have led efforts nationally to resolve issues with Common Core and establish a powerful new educational vision for our state. In planning this year's conference, CERA's board focused on the need to provide a strong and cohesive bridge between past practices and Common Core's changes to curriculum, assessment, evaluation, research, and technology.

A critical objective for the conference is to provide resources, experts, and information about all these issues. Along with Paula Carroll, CERA's new Acting Executive Director, the Board and I have reached out to a diverse group of national and state partners to help provide you with a full range of information, resources and services needed to make important decisions for students, schools, and districts in 2014 and beyond.

While we're still adding speakers, sponsors, and partners to the conference agenda, we have been joined in our efforts by an unprecedented number of other organizations, including:

- Smarter Balanced Assessment Consortium
- California Department of Education
- California School Board Association
- California County Superintendent Educational Services Association
- Educational Policy Institute of California
- American Evaluation Association
- P21.org

As an organization, CERA continues to be committed to building a personal network of educational professionals who connect with each other in meaningful ways to share experiences, research findings, expertise, and techniques to address educational problems, policies, and issues. Our 2014 conference is shaping up to be one of the most powerful on record.

Your participation is important to CERA, your colleagues, and ultimately California's students. We rely on our membership to get out the message of what CERA is doing for California educators. One way to help is by forwarding information about CERA – our purpose, conferences, and other activities -- to your colleagues. As well, we would welcome suggestions, comments, and research paper submissions for the conference.

Again thanks for your ongoing support. We look forward to seeing you in San Diego in December.

Shannon E. Coulter
CERA President

Pilots, Trials and Field Tests: What They Told Us About Preparing for Smarter Balanced Assessments

Donna L. O'Neil, Ed.D., Director, Assessment, Evaluation and Planning San Juan Unified School District

The Common Core State Standards are already being implemented in many California school districts with aligned assessment tools not too far behind. The ramp up to this next generation of assessments is an exciting yet daunting undertaking for local districts that are already stretched thin trying to shift to the new expectations of Common Core. As a Director of Assessment in a large suburban school district, I am invigorated by the challenge of ensuring that 66 schools and over 45,000 students are prepared for changes on the horizon.

So how does one prepare a large school district for success when the parameters of the new assessment system are not clear? Volunteer for everything! In 2012-13, our school district participated in every trial and pilot available. This included 130 of our students who participated in the SBAC Small Scale Trials, 200 students who took the Computer-Based Science Assessment, and 35 classes that participated in the SBAC Spring Pilot. While the participation rates were small our ah-ha's were significant. In addition to those external opportunities, 9,000 students at 31 sites voluntarily piloted a computer-adaptive growth assessment in reading and math. All of those experiences provided our assessment team with invaluable information on what to do *(and not to do)* in preparation for the new assessments.

Throughout all of these pilots and trials the mantra was the same---what can we learn from teachers and students and how can we use those learnings to prepare for Smarter Balanced assessments? Our findings in six areas, listed below, center around instructional and assessment issues with implications for many different school/district systems.

> **"I thought that you really had to understand what they were trying to get across to you in all the different problems because if you didn't you couldn't really comprehend what they were trying to get you to do and it made it a little bit more difficult."**
>
> 5th Grade Student

Figure 1 displays our districts findings around

- **Perseverance/stamina,**
- **Test-taking strategies,**
- **Instructional/assessment strategies,**
- **Test structures and tools,**
- **Item types, and**
- **Directions.**

Pilots, Trials and Field Tests: What They Told Us About Preparing for Smarter Balanced Assessments (Cont.)

Figure 1. Instructional Findings from Online Testing

Perseverance and Stamina	Students quickly grew frustrated when the test model was different from what they experienced in class. Students were visibly tired after 7-8 items on an English-language arts test suggesting lack of stamina for testing. Student interest and buy-in increased on computer-delivered assessments, even when students knew they would be scored or graded on the assessment.
Test-Taking Strategies	Some students struggled because they were unable to take notes when solving math problems. Students were challenged when they could not skip [difficult] problems and revisit them later (MAP). Applying the test-taking strategy of reading questions before the stimulus (i) resulted in students re-reading texts numerous times for each item in a set. Students appeared to lack strategies to approach unfamiliar, non-multiple choice items.
Instruction/ Assessment Strategies	Students had difficulty with academic vocabulary in both the directions and test items. Students struggled to organize, draft, edit and revise their essay on a computer in a single sitting. Students said that listening comprehension items were difficult because the text was not in front of them. Most listened to the passage several times after reading the question. Some students struggled to explain their process or thinking in answering the question. Students expressed frustration when there were multiple questions in one problem, stimulus (i), or topic. Students demonstrated limited ability to use multiple stimuli to answer questions instead of drawing responses from a single stimulus.
Test Structure & Available Tools	Students skipped or did not scroll through all directions regarding available tools. Students were unaware that tools (e.g., highlighter, calculator, spellcheck) were available to them. Students did not understand keyboard commands and notation used to show the commands. Third graders struggled with keyboard layout. When system problems occurred, teachers and students were frequently not sure what to do.
Item Types	Maintaining attention throughout the test was difficult for many students. Students expressed frustration that item types were mixed together (multiple choice, free response, etc.) Student responses were shorter than expected (i.e., completed essay in 10 min).
Directions	Students did not carefully read directions, often 'assuming' they knew what was being asked. Students struggled to understand what the question was asking them to do. They did not always re-read items or directions. In the essay/performance task, students got directions that included what to do and how it would be scored. Students either skimmed and didn't use the information or got confused with all of the text prior to the actual task.

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Implications for Instructional Practices

These findings imply that both instructional and system changes are needed to increase student success on the next generation of assessments. By ensuring that students experience a variety of instructional situations, it is likely that they will develop additional/new strategies and tools that will serve them regardless of the assessment format. The following list includes implications for instruction and assessment based on observations made during pilot testing.

- Ask students daily to explain their thinking and reasoning both verbally and in writing in all content areas. Include free-response items on assessments to emphasize their importance.
- Allow students to struggle with written directions. Gradually cut down on rewording or re-explaining immediately so that students develop strategies to attack and comprehend instructions as an independent skill.
- Increase student's independent work time using complex assignments to build stamina and perseverance. Gradually move away from constant feedback and redirection to build independence.
- Include a variety of item types *(both selected response and free response)* on classroom assessments. Phase out grouping items by type on tests and quizzes.
- Expand student experiences to include use of digital *(instead of printed)* text and other media formats *(audio, video)*. Help students practice strategies for noting important ideas which can be used when text is not on paper.
- Provide students experience on the computer beyond just interacting with software/apps. Students will benefit from the experience of the writing process *(planning, drafting and revising)* on a computer throughout the year.

Implications for System Implementation

The instructional implications listed below are significant but not sufficient to ensure successful transition from our current model of large scale testing to the next generation of assessments. Without solid system infrastructure and support, schools will struggle and the backlash will likely be the undoing of the new tools. The following list contains some of the most significant implications based on our experiences so far.

- Getting the new assessment system off the ground is a cross-departmental project. Assessment staff needs to work alongside technology and instructional staff to provide more support for schools rather than a single point of contact approach. These cross-trained teams need agreed upon triage questions to ensure that those who are struggling to meet technology requirements are quickly provided support and solutions.

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- Clear communication is essential for implementing these assessment changes. This is true among central district support, school leadership, and parents/students but also within schools among test proctors. Smoother communication flows will minimize frustration and disruptions to the testing process.
- Limited system support necessitates creative scheduling. Given the longer testing window available for the new assessments a rolling schedule can relieve some of the pressure. System support *(human, bandwidth, devices)* can better be deployed with a limited number of schools starting in a given week. We experienced greater success with first-time testing sites using this model.
- Beginning with the willing ensures that many of the problems are addressed prior to other teachers engaging with the testing. Having one teacher test ahead of the rest of the school and then helping provide training to the remaining teachers lends authenticity to the process and ensures that issues encountered and solved can be shared across all classrooms.
- Whether schools or districts are purchasing new technology or repurposing existing devices for testing, all teachers and proctors need hands on experience with the devices which will be used for testing and proctoring. Knowledge with one device does not necessarily transfer to a different device. Lack of familiarity with the computers or tablets complicates testing.
- The mindset around testing schedules will likely need to be broken. New testing procedures will take longer the past ones. Unless your school has a one-to-one situation not all students will test simultaneously, as such additional testing time is required. This creates scheduling and environment challenges which must be addressed well in advance of testing.
- Assessment tools to support students with special needs are also changing and this work must begin immediately. English Learners, students with Individualized Education Plans (IEPs), and those with Section 504 plans will have access to a new set of variations, accommodations and modifications that must be considered far in advance of the test administration.
- Scale is important. While small pilots provide initial useful information, use of testing devices and system infrastructure as close to scale is the only way to truly test district readiness.

This is an exciting and challenging time to be an educator. Implementing new standards, new instructional models, new assessments, and new technology simultaneously necessitates that

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everyone in the school system is on the same page. Underestimating the contribution of any part of a system means leaving valuable knowledge and resources on the sidelines. Our experience has taught us that assessment and technology staff must work hand in hand with district instructional support and local school staff in order to achieve success. Finally, engaging parents and students around the changes must begin today. What will you do next?

Smarter Balanced Field Test and Senior Assessment Fellows

All local educational agencies (LEAs) in California are embarking on exciting and significant changes in the way they prepare students for success in college and the workplace. California adopted the Common Core State Standards (CCSS) in 2010 and throughout the state LEAs are now engaged in implementing the curricular and instructional changes called for in this transition to new standards and assessments. The new California Assessment of Student Performance and Progress (CAASPP), which replaced the STAR Program as California's statewide pupil assessment system, includes the CCSS aligned Smarter Balanced assessments.

Between March and June, California will administer the Smarter Balanced Field Test in English-language arts and mathematics. This Field Test is a major milestone in California's transition to CAASPP. It models high-quality instruction of the CCSS and allows the teachers and students to gain hands-on experience with a computer-based assessment. It also provides opportunities for teachers to begin integrating assessment and technology skills into high-quality daily instruction. Further, this Field Test allows LEAs to begin to identify the gaps and needs in their preparation for the 2014–15 operational test, and to "test the test" in a low-stakes environment.

A variety of resources are available to help local and site administrators increase their readiness for the Field Test. Online training modules and tutorials, key resources, and access to the Practice Test, Training Test, secure browsers, the Test Information and Distribution Engine (TIDE), and the California Portal to Smarter Balanced are all available from the newly resigned California Department of Education (CDE) Smarter Balanced Webpage: **http://www.cde.ca.gov/ta/tg/sa/smarterfieldtest.asp.**

The State Superintendent of Public Instruction and the CDE are committed to helping LEAs in their transition efforts. To further enhance the collaboration, relationships, and communication between the CDE and LEAs to ensure the successful implementation of CAASPP, in January, Deb Sigman, Deputy Superintendent of Public Instruction, appointed four Senior Assessment Fellows. The Fellows are developing and delivering a variety of presentation materials for LEAs to use with a full range of stakeholders. To request a presentation or for other outreach assistance, please contact the Fellows at **CAASPP-fellows@cde.ca.gov.**

Implementing the Common Core Standards:

The Challenge for Digital Immigrants

Alicia Henderson

The new Common Core Standards (CCSS) have raised the bar for digital teaching and learning, and these new expectations pose challenges for all educators, but especially for those who are "digital immigrants." A digital immigrant is an individual who was born before the widespread adoption of digital technology *(i.e., prior to 1980)*. The term digital immigrant may also apply to individuals who were born after the spread of digital technology and who were not exposed to it at an early age. Digital immigrants are the opposite of digital natives, who have been interacting with technology since childhood.

Although some digital immigrants have become quite tech savvy, there appears to be a fundamental change in the way people learn when exposed to technology early on *(Presnsky, 2001)*. At the very least, digital natives are both more at ease with technology and they have a different mindset compared to digital immigrants because technologically-enrich environments are the norm for them. As school districts move to full implementation of the CCSS, this divide between digital natives and immigrants has created a real opportunity to ensure that digital teaching and learning occurs in every classroom.

Although expectations for digital literacy skills are not new in the field of education, accountability for these skills is new. While some teachers have incorporated technology in instruction for years, others have opted out because they were not comfortable with technology, or did not realize the connections between technology, teaching, and learning.

In the CCSS, the expectations for digital literacy begin in kindergarten, and continue through 12th grade. For example, in kindergarten, students are expected to explore a variety of digital tools, with guidance and support from adults, to produce and publish writing, including collaboration with peers (W.K.6). In 1st grade, students are expected to know and use various text structures, including electronic menus, to locate key facts or information in a text (RI.K.5). As 2nd graders, students are now expected to be proficient with search tools *(e.g. key words, sidebars, hyperlinks)* to locate information (RI.3.5), as well as create audio recordings and visual displays of stories (SL.2.5). By the time students are in 4th grade, they are expected to interpret information presented quantitatively *(e.g., Excel)* and explain how the information contributes to an understanding (RI.4.7). These digital expectations increase with every grade level, such that students will graduate from 12th grade with the digital literacy needed for 21st century career and/or post-secondary education.

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Implementing the Common Core Standards:

The Challenge for Digital Immigrants (Cont)

Therefore, with CCSS implementation, digital literacy for teachers is no longer optional; rather it is mandated. Every grade level, and every classroom, now has standards that can only be met with the use of technology. Yet, as we implement the CCSS, it has become apparent that not all educators are ready to provide instruction using technology, and this challenge is particularly acute for our "digital immigrants."

When confronted with teaching using technology, digital immigrants face a dual challenge to develop not only the required competencies but also to overcome a fixed mindset. In order to develop the necessary competencies, school districts must provide both live and virtual professional development specific to technology. Districts must also provide professional develop time for teachers to use digital resources developed by our assessment consortia, Smarter Balanced.

The second challenge, the need to address and change mindsets about technology, has become one of the biggest challenges facing school districts. One successful approach has been to set small and attainable steps to achieve beginning competency for all staff with no "opt-out" option. Small successes with technology are often followed by increased efficacy and motivation using technology in other ways.

The CCSS has created a crossroad in education where digital immigrants have been forced to grapple with the question of the how technology supports learning. School districts must support teachers as they develop their rationale and understanding of how to teach in a digital age and do so in a way that holds every educator accountable for using technology in the 21st century.

CERA Brief
Implementation for Outcomes

Why should educators care about implementation science? Because implementation is the missing link in current efforts to improve educational outcomes for all students. The knowledge base for implementation science has grown exponentially in recent decades. It helps to explain why only some educational improvement efforts succeed and why only some improvements are sustained. The Formula for Success reflects the growing science of implementation:

Effective Instruction X Effective Implementation X Enabling Contexts = Educationally Significant Outcomes

The Formula points to three components that interact over time to produce intended outcomes. In an extreme case where Effective Implementation is zero, the Educationally Significant Outcomes will be zero. Thus, attention to any one or two components is insufficient. A substantial body of literature specific to student learning exists to inform Effective Instruction. Efforts to create Enabling Contexts have been the focus of federal and state legislation for decades, especially since the advent of No Child Left Behind (2001) and the dramatic increases in federal funding for education.

Until policy makers and educators account for Effective Implementation, the results of improvement efforts likely will be disappointing. The NAEP data for literacy of 9-year olds has hovered at a score of 215 on a 500-point scale since 1971 despite the best efforts of generations of educators (NCES, 2013). This finding suggests educational practices must change, and now is the time for change. Increased attention to improving the implementation component will provide substantial advantage in attempts to improve educational outcomes.

Implementation theorists' understanding of the implementation component has increased dramatically. Since the 1960s, implementation specialists and researchers have identified the steps/strategies needed to purposefully produce significant outcomes on a beneficial scale. Implementation Teams bring expertise to support teachers' use of effective instruction, support administrators' efforts to establish hospitable environments for teacher instruction and student learning, and support leaders who engage in organization and system change specifically designed to create adaptive learning organizations.

To reach all schools and teachers, Implementation Teams help create readiness to change among staff, leaders, and administrators. Imple-

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mentation Teams help establish data and communication links to bring about greater alignment and coherence among policies and practices.

Implementation Team members are experts with respect to implementation science as applied in educational settings. Implementation Teams can be thought of as the hardware that supports the use of many software applications. Software (Effective Instruction; Enabling Contexts) is not very functional in the absence of the hardware (Effective Implementation) required to load it and use it. Like computer science, implementation science is universal and applies to all human services, including education. This is good news, since what is learned in one field can be applied to all other human services. Educators can contribute to the development of implementation knowledge and can benefit from a growing and global understanding of implementation.

Implementation Teams are not common in human services. They must be developed in education in such a way that they become self-expanding and re-generating in order to leverage benefits for all students. The work has begun in some states and the intensive learning will continue until the task of developing Implementation Teams is well known and can be repeated in states and districts. At that point, all three components of the Formula for Success will be in place and Educationally Significant Outcomes can be realized for the coming generations of students.

SUGGESTED READINGS

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What makes High School Asian English Learners Tick?

Daeryong Seo & Husein Taherbhai

This study examined competence-related beliefs and task values among high school Asian population groups *(i.e., Native English speakers, Former-English Learners, and Present-ELs)*, and between the Asian and Non-Asian groups in their math and science performance. The results of current study indicated that Present-EL Asians performed better than Former- and Present-EL Non-Asians and equally well compared to native English-speaking Non-Asians in math achievement test. In the context of motivational beliefs, all Asian groups in general had a relatively higher level of competence, interest, and perception of utility in math and science than the Non-Asian groups. In addition, all Asian groups reported higher math competence mean score than science regardless of EL status when a between-subject comparison *(i.e., math vs. science)* was conducted. On the other hand, all Non-Asian groups scored much higher in math utility than science regardless of EL status. The results may be interesting, but we caution against generalization of these findings until future studies report similar results.

While part of the reason for Asian ELs' higher math achievement could be attributed to their motivational beliefs, their attitudes toward math seem incongruous to Asian students in Asia. For example, Korean students were ranked very low in questions such as math ability and task values *(i.e., importance and interest)* in both the Third International Math and Science Study (TIMSS, 1997) and the 2012 Program for International Student Assessment (PISA, 2013) even though their math performance was ranked very high in both tests. Importantly, other East Asian students *(i.e., Chinese and Japanese)* also indicated the similar results in both tests. An interesting aspect in attitudinal change of Asians when they come to the U.S. could be because Asian ELs perform similarly in math achievement as native English speaking Non-Asians in spite of their language deficiency. The higher level of math confidence for Asian ELs may not be intrinsic but may be dependent on the underperformance of others.

The highly competitive nature imposed by societal pressures *(what is called "High Pressure Cooker model – see Fareed Zakaria on CNN, Sunday 12/1/2013)* on Asian students does not come with problems. A while back ago, for example, there were serious conversations about Japanese and Korean students committing suicide for doing poorly in high stake examinations. While "aping" these cultural issues would require a major national effort, our paper provides some credence to the belief that EL programs are necessary for all ELs. Besides, the understanding of motivational beliefs may throw light on more than typical remedial efforts *(e.g., tutorials)* in helping Non-Asian students achieve parity with their Asian counterparts.

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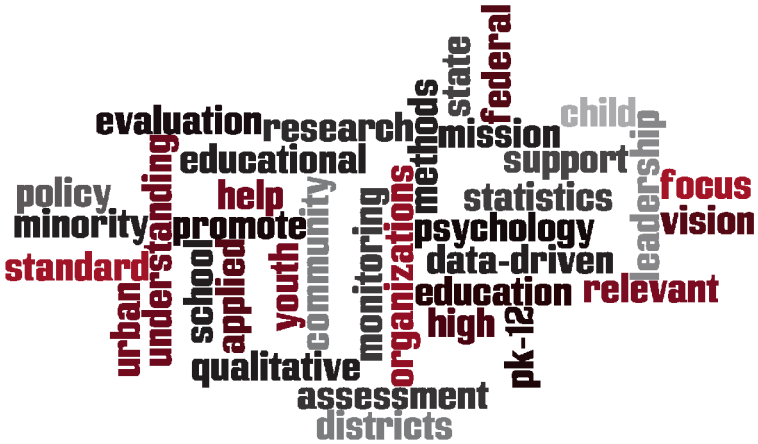

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  - Psych 308b: Categorical Data Analysis**
  - Psych 308c: ANOVA**
  - Psych 308d: Applied Multiple Regression**

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  - ED 467 Applied Multivariate Analysis
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  - Psych 315j: Survey Design
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