

A Compendium of Research on the Common Core State Standards: **Testing & Assessment**

Center on Education Policy
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About This Compendium

In the spring and fall of 2013, the Center on Education Policy (CEP) convened two meetings of researchers, policymakers, and practitioners to discuss ideas for a more relevant and coordinated research agenda on the Common Core State Standards. Participants in these meetings identified several needs and made a number of thoughtful suggestions. Many agreed there was a need for a synthesis of existing research on the CCSS and their implementation and impact.

To help meet this need, CEP has put together this compendium, which very briefly summarizes the published research on many different aspects of the CCSS. Our objective was to create an accessible and readable overview of current research that can inform implementation, policy discussions, and the development of future research on the Common Core. Therefore, we have intentionally limited the description for each study to one page that summarizes its focus, methodology, and key findings and includes a URL, where available, or a citation. The compendium is designed to be a living document and will be updated on a rolling basis—this is the second iteration.

Criteria for Including Studies

Although the compendium includes peer-reviewed research published in academic journals and similar outlets, it is not limited to these types of studies. Also included are studies published by government entities, independent organizations, research universities, and individual researchers and graduate students that provide useful information to practitioners, policymakers, and scholars.

To be included in the compendium, each study had to contain the following components:

- An articulated methodology for data collection and analysis so that others could see how the research was conducted
- An empirical approach (derived from observation or experience)
- A specific focus on the CCSS in math or English (research focused on other education issues that have implications for the CCSS was not included)
- A publication date before December 2014, our cutoff for collecting information for the compendium

We recognize that some important research with a bearing on the CCSS may have been omitted, but we wanted to set clear criteria that would yield a manageable number of the most relevant studies. In addition, the studies that are included are complex; to keep the individual summaries concise and practical, we limited the discussion to a few priority areas. We do not purport to have produced a comprehensive summary of all possible research on the CCSS, but we think this is a good starting point. The compendium was first issued in August 2014. This February 2015 update adds new studies to the compendium that were published after May 2015 and other Common Core research that has come to our attention. If you know about research on the CCSS that should be considered for inclusion in an update, please notify us at CEP by email at cep-dc@cep-dc.org.

Verification of Information

Since these are one-page summaries of longer studies that required us to prioritize the information to be included, we felt it was important to contact each study's author (or the lead author for studies with multiple authors). The authors were contacted by email and asked to provide feedback on the summary of their report.

The compendium includes studies from 55 different authors, including reports from CEP. Of the 55 authors contacted to review our summary, 40 responded, for a response rate of 73%. If a respondent made changes or suggestions to the content of our summary, their comments were considered and incorporated into the original draft (in some cases with minor editing).

We are most grateful to the authors who reviewed and verified the summaries for their studies.

How to Use the Compendium

Studies are categorized by topic then presented alphabetically by author within each topic. Studies that fit into multiple categories have been placed in both categories, so there is some duplication. For an alphabetical list of research studies by author and their assigned categories, please see Appendix A.

Please note the information on the studies contained in this compendium does not reflect all of the findings or topics included in a particular study but rather provides is a very brief overview. For example, we have not included a discussion of the limitations addressed in each study report. If you find the summary of a study compelling, we strongly encourage you to use the URL provided to read the study in its entirety.

ACT (2010)

A First Look at the Common Core and College and Career Readiness

Focus

The purpose of this study was to provide the best estimate of student performance on assessments aligned to the Common Core State Standards, using current ACT metrics of college and career readiness.

Methodology

Using the ACT research-based College Readiness Benchmarks, researchers estimated students' college and career readiness for each of the clusters from the CCSS. The data was gathered in the spring of 2010 from 256,765 students in 11th grade and reported as a whole and by race/ethnicity.

Key Findings

Overall, roughly 33% of students are prepared for college and/or careers. Furthermore, when the data is reported by race/ethnicity, White students scored higher in every measured category than did African-American or Latino students. Other key findings in literacy and mathematics are reported below.

Literacy

- **Too few students understand complex texts.** Only 31% of the sampled students performed at a college- or career-ready level when reading complex texts.
- **Curriculum and instruction needs to increase emphasis on key aspects of language acquisition.** Specifically, the authors recommend more focus on language variety, skillful use of language, and the ability to acquire and use rich vocabulary.
- **Content-specific reading skills need to be strengthened.** Students struggled the most with reading science content, but students also need to improve their reading, writing, and communication skills in other disciplines.

Mathematics

- **More emphasis needs to be placed on the foundations of mathematics in curriculum and instruction.** Only 34% of sampled students performed at a college- and career-ready level when working with tasks involving number and quantity.
- **Better intervention programs are needed for students who struggle with mathematical concepts in the earliest grades.**
- **Students need to have a better understanding of mathematical processes and practices to be successful in college and/or careers.**

Where to Obtain This Report

<http://www.act.org/commoncore/pdf/FirstLook.pdf>

Center for the Future of Teaching and Learning at WestEd (2013)

Preparing for the Common Core: Using Performance Assessment Tasks for Professional Development

Focus

This study monitored implementation of a professional development pilot program designed to prepare teachers for the Common Core State Standards by having them develop performance assessment tasks to measure students' mastery of the math and English language arts (ELA) concepts in the CCSS. The pilot was implemented in member districts of the California Office to Reform Education (CORE).¹ The professional development activities studied were conducted during three days in June 2012, and the teacher-designed performance assessment tasks were implemented in classrooms in school year 2012-13.

Methodology

Using a protocol, researchers interviewed educators in three CORE districts about their experiences piloting the assessment tasks. Interviewees included 62 teachers, 15 school administrators including principals and instructional coaches, and 3 district administrators.

Key Findings

- **Performance assessments tasks supported teachers' understandings of the CCSS by:**
 - *Helping teachers understand the CCSS' expectations for students.* Participating teachers said the CCSS in ELA placed more emphasis on writing, speaking, and listening skills did than the previous California ELA standards. Math teachers said that the assessment tasks required a deeper understanding of mathematical concepts than did the previous standards.
 - *Helping teachers realize the gaps and alignment between the CCSS and students' knowledge.* Participating educators said that many students were not currently performing at a level necessary to succeed on the CCSS assessment tasks and were unprepared for the academic rigor of the CCSS, and that some students who were successful with previous assessment tasks struggled with the CCSS assessment tasks. They also said that students' knowledge and skills aligned with some of the CCSS expectations, and that performance tasks, by requiring students to demonstrate what they knew, allowed teachers to award partial credit.
 - *Helping teachers understand the changes needed in their instructional practice to meet the demands of the CCSS.* Study participants noted that the tasks with which students struggled the most were not a focus of their current instruction. Teachers also reported that it would take a lot of work to make a successful transition to the CCSS from their previous standards.
- **Teachers and principals said they need support from their districts with implementing the CCSS.** Their needs included clear communication about the district's vision for the CCSS, professional development that shows CCSS-aligned instruction in action, and time for common planning.

Where to Obtain This Report

<http://www.wested.org/resources/preparing-for-the-common-core-using-performance-assessments-tasks-for-professional-development/>

¹ At the time of the study, CORE consisted of eight school districts: Clovis, Fresno, Long Beach, Los Angeles, Oakland, Sacramento, San Francisco, and Sanger. Since then, Garden Grove and Santa Ana Unified have joined.

Center on Education Policy (2014c)

Common Core State Standards in 2014: District Implementation of Consortia-Developed Assessments

Focus

The purpose of this study was to learn more about districts' strategies and policies for, and challenges with, preparing for the CCSS-aligned assessments being developed by the Smarter Balanced Assessment Consortium or the Partnership for Assessment of Readiness for College and Careers (PARCC).

Methods

In the spring of 2014, researchers surveyed school district officials drawn from a nationally representative sample of districts across the country that were located in states that had adopted the CCSS. This report analyzes data only from districts in states that were part of Smarter Balanced or PARCC.

Key Findings

- **School districts in CCSS consortia member states have a wait-and-see attitude about how useful the new assessments will be in improving instruction and providing information to teachers, parents, and students.**
 - Nearly half of these districts said it was too soon to tell whether the consortia-developed assessments will yield data to inform instruction in math or English language arts (ELA).
 - A majority of districts said it was too soon to tell whether the new assessments will be an improvement over their state's current assessments, will drive instruction in positive ways, or will produce results that will be understood by parents and students.
- **As a result of their state's membership in a testing consortium, many districts are planning to revise their own interim and formative assessments in math and ELA, although very few districts (>7%) are considering eliminating these and other types of local assessments.**
 - More than half of these districts are considering revising their formative assessments.
 - About 45% of districts are considering revising their interim assessments.
- **A majority of districts in consortia states foresee challenges with the technological aspects of administering the online consortia assessments.**
 - About 75% of districts report major or minor challenges in having enough computers with adequate processing speed and other characteristics to administer the new assessments.
 - Roughly three-fourths of districts report major or minor challenges with finding a sufficient number of staff at the district or school level who have expertise to address technology-related problems that may arise during test administration.
 - More than half of districts do not expect to have in place the technological infrastructure needed to administer these assessments until school year 2014-15 or later.
- **The majority of districts in consortia states are making plans to target support services for students who may need additional assistance to pass CCSS-aligned assessments.**

Where to Obtain This Report

<http://cep-dc.org/displayDocument.cfm?DocumentID=442>

Center on Education Policy (2013d)

Year 3 of Implementing the Common Core State Standards: States Prepare for Common Core Assessments

Focus

The purpose of this study was to report states' strategies, policies, and challenges during the third year of Common Core State Standards implementation. This report focuses on states' preparation for the transition from their previous assessments to the CCSS-aligned assessments that are scheduled to be released in the 2014-15 school year.

Methodology

Researchers sent surveys to state superintendents or their designees in the 46 states that had adopted the CCSS at the time of this study and 40 state administrators responded to the survey. The survey included 43 questions and was used to produce six separate reports.

Key Findings

- **Of the states surveyed, 27 had already taken steps to start assessing students' mastery of the CCSS or will do so *before* the consortia-developed assessments are ready in school year 2014-15.**
- **Half of the survey states had begun undertaking activities to prepare teachers to interpret and use the results of the diagnostic assessments being developed by the state testing consortia.**
- **About half of the states surveyed had started working with districts and schools to plan both extra assistance for students who may need help in passing CCSS-aligned exams and remediation for students who fail the exams on the first try.**
- **Only eight survey states were considering temporarily suspending consequences for schools or individuals based on student performance once the CCSS-aligned assessments are administered.**
- **Thirty-three survey states were planning to conduct public relations efforts to help educate parents and other stakeholders about the reasons why students may not perform as well on the CCSS-aligned assessments as on current state tests.**
- **A majority of the survey states that belong to one or both of the state testing consortia expressed positive views about key features of the consortia-developed assessments.**
- **Seventeen of the states surveyed were considering administering CCSS-aligned assessments in addition to or instead of those being developed by Smarter Balanced or PARCC.**
- **A majority of survey states reported facing challenges with various aspects of preparing to administer the CCSS-aligned assessments.** Challenges included adequate Internet access and bandwidth and sufficient numbers of computer to administer the online assessments.

Where to Obtain This Report

<http://cep-dc.org/displayDocument.cfm?DocumentID=423>

Partnership for Assessment of Readiness for College and Careers (2014)

PARCC Field Test: Lessons Learned

Focus

The purpose of this study was to report the successes and challenges of the first field test of the Partnership for Assessment of Readiness for College and Careers (PARCC) assessment.

Methods

States that participated in the field test conducted formal surveys of test administrators, test coordinators, and students. Feedback on the field tests was also collected through observation of the field test in 40 schools, e-mails from field test participants, and through social media.

Key Findings

- **Test items:**
 - Test makers and reviewers approved approximately 89% of the mathematics items and 78% of the English language arts text sets for future assessment use.
- **Student experience:**
 - The majority of students completed the field test on time—this was true of students who took the computer-based test and of students who took the paper-based test.
 - Most students reported they understood the test directions.
 - More than 60% of students reported that the math test was harder than their school work—roughly double the percentage reporting that the ELA test was harder than school work.
 - In both subjects, students said they had been exposed to the most of the subject’s content during the school year.
 - Most students who took the computer-based assessment reported that the tools (highlighter, symbols, calculator, and passage navigation) were easy to use.
- **Other categories:**
 - **Technology preparedness:** The majority of test administrators and coordinators used the technology preparedness tools and activities, including an infrastructure trial (69%), data from the Technology Readiness Tool (62%), and proctor caching (60%).
 - **Training materials:** On average, 59% of test administrators and coordinators reported that online training modules were useful in preparing and administering the test.
 - **Manuals:** Some respondents said that the manuals were user friendly (42%), clear and concise (42%), relevant and useful (50%), and sufficiently comprehensive (46%).
 - **Administration procedures:** Similar proportions of participants reported that the access portal was easy to use (45%), the student registration process and test setup process were straightforward and easy to complete (37% and 39%), and the computer-based delivery system worked well during the test (28%).
 - **Customer support:** Test coordinators reported that service requests were answered promptly three-quarters of the time, questions were answered within one communication 65% of the time, and their questions were answered accurately 51% of the time.

Where to Obtain This Report

<http://www.parcconline.org/sites/parcc/files/field-test-lessons-learned-final.pdf>

Smarter Balanced Assessment Consortia (2014)

Smarter Balanced “Tests of the Test” Successful: Field Test Provides Clear Path Forward

Focus

This study describes the successes and challenges of the first field test of the Smarter Balanced tests.

Methods

Researchers compiled results from a series of state-created and -administered surveys by 13 of the 22 states that are members of Smarter Balanced. Overall, 19,600 students who took the field test and 4,964 adults who were involved in test administration provided feedback on the state-administered surveys. A reviewer used the surveys to generate major themes and findings from across the 13 states.

Key Findings

- **Technology:**
 - Of the seven states that included technology questions in their survey, 70% or more said that the field test went as well as or better than expected.
 - Some schools still run Windows XP systems, which no longer receive Microsoft support. Three of the 13 states had more than 1 out of every 5 devices used for testing running XP.
 - More than 80% of problems requiring help desk contact arose before student testing began.
 - Several problems were reported with the test delivery system and help desk; the most common were loss of Wi-Fi connection, computers/servers freezing, and difficulty logging in.
 - Of the five states that asked about the testing interface, 67% of students responded that the interface was easy or very easy to use.
- **Readiness of test administrators and proctors:**
 - Seventy percent of test administrators and coordinators surveyed across five states responded that the test administrator training materials were helpful or very helpful.
 - In-person training sessions for district leads were given the highest satisfaction rating.
 - Many test administrators may not have been aware that students could take breaks during test administration.
- **Function of new item types:**
 - The youngest students reported they had the easiest time using new item features that include highlighting text, dragging and dropping text, or manipulating points on a graph.
 - Seventy-four percent of administrators said that whole-class warm-up activities or extended reading from a proctor were helpful to students—about half of the student respondents said those activities were helpful.
- **Assessment rigor and alignment to classroom instruction**
 - In general, students in the higher grades found the exams to be more difficult than did students in the lower grades.
 - Fewer students in high grades (1 out of 3) reported that the assessment was somewhat well or very well aligned to instruction than did students in lower grades (9 out of 10).

Where to Obtain This Report

http://www.smarterbalanced.org/wordpress/wp-content/uploads/2014/10/SmarterBalanced_FieldTest_Report.pdf

Credits and Acknowledgements

Studies included in this compendium were compiled and summarized by Matthew Frizzell, CEP research associate and Tara Dunderdale, CEP graduate research assistant. Nanami Yoshioka, CEP graduate research assistant, checked the summaries for accuracy. Diane Stark Rentner, deputy director, Jennifer McMurrer, senior research associate, and Nancy Kober, editorial consultant, reviewed and edited the compendium. Maria Ferguson, CEP's executive director, provided advice and assistance on the compendium's content.

We are tremendously grateful to the authors of the original studies who took time to review and respond to the summaries. Thank you for providing critical feedback and helping us ensure that we are accurately reflecting the content of your research.

Based in Washington, D.C., at The George Washington University's Graduate School of Education and Human Development and founded in January 1995 by Jack Jennings, the Center on Education Policy is a national independent advocate for public education and for more effective public schools. The Center works to help Americans better understand the role of public education in a democracy and the need to improve the academic quality of public schools. We do not represent any special interests. Instead, we help citizens make sense of the conflicting opinions and perceptions about public education and create the conditions that will lead to better public schools.

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