

A Compendium of Research on the Common Core State Standards:

Teaching & Professional Development

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.

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 (2014b)

Common Core State Standards in 2014: Curriculum and Professional Development at the District Level

Focus

The purpose of this study was to learn more about districts' strategies and policies for, and challenges with, obtaining or developing CCSS-aligned curricula and providing CCSS-aligned professional development services for teachers and principals.

Methods

In the spring of 2014, researchers surveyed school district officials drawn from a nationally representative sample of school districts across the country that were located in states that had adopted the Common Core. Sixty-five percent of the districts contacted responded to the survey.

Key Findings

- **A majority of school districts have begun to implement CCSS-aligned curriculum but there is still work to be done.** For example, only about 33% of respondents had implemented Common Core-aligned curriculum by the start of this year in *all* schools.
- **Curricular resources are being developed locally.** Over 80% of districts reported that they have obtained or are obtaining CCSS-aligned curricular materials from local sources, either the district itself, other districts in the state, and/or teachers with the district. About 90% of respondents said that developing or identifying curricular materials has posed a major or minor challenge.
- **At least two-thirds of districts reported that the vast majority (90-100%) of their teachers and principals had participated in at least some CCSS-related professional development as of school year 2013-14.** The professional development sessions were related to the content of the CCSS, instructional strategies, and the use of data from CCSS-aligned assessments.
- **School districts and states were among the entities cited by the greatest proportion of districts as providers of CCSS-related professional development for teachers and principals.** Teachers also are providing standards-related professional development for teachers.
- **About one-third of districts said that all of their teachers are prepared to teach the CCSS, while about two-thirds expected it to take until end of the 2014-15 school year or later before all their teachers are prepared to teach the CCSS.** Responses for preparing principals to be instructional leaders around the Common Core were similar to the responses for teachers.

Where to Obtain This Report

<http://cep-dc.org/displayDocument.cfm?DocumentID=441>

Center on Education Policy (2013c)

Year 3 of Implementing the Common Core State Standards: Professional Development for Teachers and Principals

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' professional development strategies and challenges.

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

- **In more than half of the states surveyed, a majority of K-12 teachers of math and English language arts (ELA) had participated in at least some CCSS-related professional development.** Twenty-two state respondents reported that 50% of their math and ELA teachers had received some professional development; 21 state respondents said that 50% of their principals had received CCSS-related professional development.
- **All 40 states surveyed were providing some type of professional development on the CCSS to teachers, and 39 states were providing these services to principals.** Professional development for teachers and principals was provided by state education agencies, local education agencies, and/or other entities.
- **States were providing various types of professional development on the CCSS.** The most commonly reported methods for providing professional development related to the CCSS include disseminating CCSS-related professional development materials for teacher training, conducting statewide professional development initiatives, and encouraging school and district collaboration on CCSS implementation through professional learning communities.
- **The majority of survey states reported major challenges in providing CCSS-related professional development.** The most commonly cited challenges included providing a sufficient quantity and quality of professional development and other supports to teachers, providing all math and ELA teachers in the state with state-sponsored professional development, and providing principals with state-sponsored professional development.

Where to Obtain This Report

<http://cep-dc.org/displayDocument.cfm?DocumentID=422>

Consortium for Policy Research in Education (2014)

From the Inside In: An Examination of Common Core Knowledge and Communication in Schools

Focus

This study explored how the dissemination of knowledge and influence of the Common Core Learning Standards² (CCLS) may help teachers engage with and influence the implementation of these standards.

Methodology

Using the same sample as a previous CPRE study (see 2013a), researchers selected three schools that were highly engaged in CCLS activities, three that were moderately engaged, and three with low levels of CCLS engagement (one school withdrew). Data was collected through a school faculty survey that focused on faculty's CCLS knowledge, understanding, and implementation of the standards. The analysis was conducted on individual administrators, coaches, and teachers; grade-level teams for elementary school; and subject-matter teams for middle school. When analyzing teams, researchers focused on the number of advice-seeking connections between team members (density), the number of times teachers on a team sought advice from a team member (frequency), and the impact of the given advice (influence).

Key Findings

- **Knowledge of the CCLS varied by subject and position.** School faculty scored higher on CCLS knowledge tests for English language arts (CCLS-ELA) than on CCLS knowledge tests for math (CCLS-M). Administrators and coaches scored higher than classroom teachers did.
- **Knowledge of the CCLS-ELA was related to seeking resources outside of the school.** This was not true for CCLS-M, however. The people most likely to seek resources outside of the school were administrators and coaches. English teachers in middle schools were also more likely to seek resources outside of the school than the math teachers in those schools.
- **In elementary and middle schools, team knowledge and communication about the CCLS varied.** Researchers also found little connection between team knowledge and team advice seeking. However, there was a connection between seeking knowledge outside of schools and requests for information. Researchers also found that teachers were able to identify and use sources of knowledge within their school.
- **Across the eight schools, 37 out of 456 respondents were more likely than other participants to receive requests for assistance about the CCLS and aligned-assessments.** These people were more likely to have higher knowledge about the CCLS-ELA and the CCLS-M and to seek resources outside the school. Roughly two-thirds of these people were administrators or coaches, and the remaining third were classroom teachers.

Where to Obtain This Report

<http://www.cpre.org/fromtheinsidein>

² Some states that adopted the CCSS added up to 15% of state specific content to the standards and/or changed the name of the standards. New York did both, and calls its standards the CCLS.

Editorial Projects in Education (2013) *Teacher Perspectives on the Common Core*

Focus

The purpose of this report was to gain insight into educators' views of the Common Core State Standards and their preparation to implement the standards in their classrooms.

Methods

In October 2012, *Education Week* invited randomly selected registered website users who had previously identified themselves as classroom teachers to participate in a web survey. The study was based on responses from 599 qualified K-12 teachers and instructional specialists in CCSS-adopting states.

Key Findings

- **Large majorities of respondents said they were familiar with the CCSS in math (78%) and English language arts (92%).**
- **Respondents get information on the CCSS from a variety of sources.** Teachers most often learned about the CCSS from school administrators (60%), state department publications (59%), education media (53%), and teachers in their school (53%). They were least likely to learn about the CCSS from education publishing or testing companies (20%) and general news and media sources (17%).
- **The majority of teachers (71%) have received some professional development (PD) related to the CCSS but the amount and quality have varied.** For example, 28% of teachers had more than 5 days of CCSS-related PD while 12% had less than one day. About 66% characterized their PD as high-quality. Most of the professional development was focused on English and literacy (81%), mathematics (57%), and alignment between previous standards and the CCSS (56%), and was delivered in structured or formal settings (81%) or in collaborative planning time (55%).
- **About 74% of respondents said that more planning time would help them feel better prepared to teach the CCSS.** Access to aligned curricular resources and access to aligned assessments were tied for the second most helpful resource (72%). The least helpful resource identified was more information about the changes from previous state standards to the CCSS (33%).
- **About 56% of respondents said their main curricular materials were not aligned to the CCSS.**
- **Few respondents said that they, their school, or their students were very prepared for the CCSS.** Twenty percent of respondents said they were very prepared to teach the CCSS to students as a whole. Nine percent of respondents said their school was very prepared to implement the standards, and 5% said their students were very prepared to master the CCSS.
- **Seventy-six percent said the standards would improve their instruction and classroom practice.**

Where to Obtain This Report

http://www.edweek.org/media/epe_survey_teacher_perspectives_common_core_2013.pdf

Simpson, A. & Linder, S.M. (2014)

An Examination of Mathematics Professional Development Opportunities in Early Childhood Settings

Focus

The purpose of this study was to examine the pre-service and in-service professional development opportunities for teachers of early childhood education (birth to five) in mathematics.

Methods

This study utilized a multi-phased mixed methods model, conducting surveys and interviews with both providers and recipients of professional development for early childhood mathematics education. The sample of providers included 815 participants and 320 of them completed surveys (a 39% response rate) and researchers conducted 20 follow-up interviews. The sample of recipients included 1,127 survey-responding participants (no response rate provided) and researchers conducted 27 follow-up interviews. To measure alignment to the Common Core State Standards in mathematics, the researchers collected program descriptions, course descriptions and syllabi, and programs of study from 17 two-year and 27 four-year institutions providing degrees in early childhood education for the 2011-2012 academic year.

Key Findings

This study included questions and key findings that are not directly related to the Common Core State Standards. For brevity, only key findings that are directly related to the CCSS or the CCSS-aligned assessments are presented below.

- **Half of the providers interviewed mentioned the CCSS-M as a focus of their professional development.** Of these, only two worked with pre-service educators in a college or university. The majority of these worked with school districts and in-service teachers.
- **Most institutions in the study did not have pre-service courses aligned with the CCSS-M.** Only 3 two-year and 11 four-year institutions had course content that was aligned with the CCSS-M.

Where to Obtain This Report

Simpson, A. & Linder, S. (2014). An examination of mathematics professional development opportunities in early childhood settings. *Early Childhood Education Journal*, 42 (5), pp. 335-342.

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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