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**New research: Chicago showed instructional improvements under standards reform, while many other places did not**

A new UChicago Consortium on School Research study released today asks: **How did one district—Chicago Public Schools (CPS)—promote change in instructional practices in math and science aligned with new learning standards?** Researchers used districtwide student and teacher surveys; interviews with educators, school leaders, and district officials; and student achievement data between 2014–15 and 2017–18. They looked specifically at district efforts to implement the Common Core State Standards in Mathematics (CCSS-M) and the Next Generation Science Standards (NGSS). While CCSS-M and NGSS standards were the focus of this study, the findings are broadly relevant to standards-driven instructional change.

Researchers found:

1. Math and science instruction improved in Chicago during the years of standards reform, based on student survey reports of their classroom experiences from before and after standards reform.
2. Instructional practices mattered for student achievement: In schools where students and teachers reported frequently using standards-aligned practices in their math and science classes, there were stronger gains on assessments than in schools where few students or teachers reported frequent use of standards-aligned practices
3. The largest improvements in mathematics instruction and learning gains were for students with the lowest tested math scores, who were least likely to be in classes with strong instructional practices prior to standards implementation.
4. Professional learning—defined broadly to include teacher collaboration, coaching, and workshops—was the most important support strategy for instructional change.
5. Instructional resources provided by the district were helpful for implementing strong practices when they were instruction-ready and tied to professional learning around instructional practices, while other instructional resources showed a null or negative relationship with practices

“These findings point to the importance of investing in teachers’ learning, collaboration, and experimentation,” said Elaine M. Allensworth, report author and Lewis-Sebring Director of the UChicago Consortium. “It wasn’t a particular curriculum or ready-made resources—levers that policymakers often turn to—that connected to changes in instruction and increased student outcomes.”

These research findings are particularly notable because other districts did not show improvements in student outcomes with implementation. There is little evidence of changes in student achievement overall following the implementation of the Common Core State Standards. In the one study that did show positive outcomes, improvements were only seen among students from wealthier districts. But that is potentially because the studies that exist in other places examine states as a whole, and focus on changes in the content standards, comparing the state standards before and after—not whether instruction actually changed, and whether it changed in ways other than shifting content.

“Chicago focused on *how* teachers taught new math and science standards, not just *what* they taught, said Allensworth. “These findings hold enormous promise because they demonstrate that large-scale instructional change is possible when key supports are in place, but they have to be the right supports.”

### **About the University of Chicago Consortium on School Research**

With the goal of supporting stronger and more equitable educational outcomes for students, the [UChicago Consortium](#) conducts research of high technical quality that informs and assesses policy and practice in the Chicago Public Schools (CPS). We seek to expand communication among researchers, policymakers, practitioners, families, and communities as we support the search for solutions to the challenges of school improvement. The UChicago Consortium encourages the use of research in policy action and practice but does not advocate for particular policies or programs. Rather, we help to build capacity for school improvement by identifying what matters most for student success, creating critical indicators to chart progress, and conducting theory-driven evaluation to identify how programs and policies are working.

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