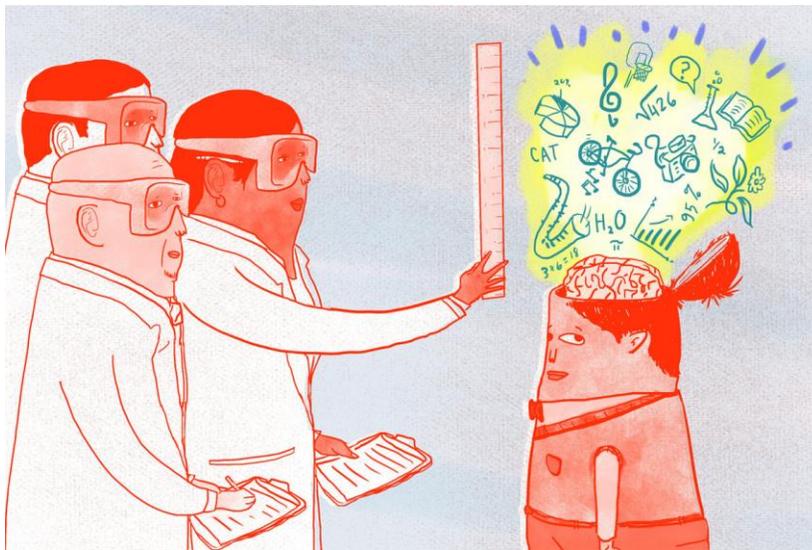


5 Lessons Education Research Taught Us In 2014

- [Facebook](#)
- [Twitter](#)
- [Google+](#)
- [Email](#)

February 26, 2015 7:03 AM ET

OWEN PHILLIPS



LA Johnson/NPR

Studies, research papers, doctoral dissertations, conference presentations — each year academia churns out thousands of pieces of research on education. And for many of them, that's the end of it. They gather dust in the university library or languish in some forgotten corner of the Internet.

A few, though, find their way into the hands of teachers, principals and policymakers. Each year the American Educational Research Association — a 99-year-old national research society — puts out a list of its 10 most-read articles.

We've looked over that list and compiled a summary of some of what we learned from the ivory tower in 2014.

1) What's The Best Way To Teach Math To Struggling First-Graders? The Old-Fashioned Way

Math teachers will often try to get creative with their lesson plans if their students are struggling to grasp concepts. But in "[Which Instructional Practices Most Help First-Grade Students With and Without Mathematics Difficulties?](#)" the researchers found that plain, old-fashioned practice and drills — directed by the teacher — were far more effective than "creative" methods such as music, math toys and student-directed learning.

The researchers from the University of California, Irvine and Penn State examined more than 13,000 first-grade math students in 1,300 schools nationally.

They found that first-graders who scored in the bottom 15 percent on math tests were more often subject to activities that have no evidence of fostering retention or improving performance. For example, teachers with lots of struggling students often sought to liven up their lessons by adding movement or music. But the researchers found little evidence that those methods worked.

Instead, they found that the only activity associated with gains in performance on an adaptive, untimed, one-one-one administered test is what we think of as traditional instruction. Namely, a teacher demonstrating how to solve a problem, followed by repeated opportunities for students to work by themselves, replicating the procedure with worksheets and drills.

These results run contrary to some interpretations of the Common Core, where students collaborate, talk through a problem and dissect the different ways to reach a solution. The researchers found that while this kind of learning can work for some students, those already struggling in math failed to grasp concepts as easily as they did under more traditional lessons.

2) The Effectiveness Of Alignment

When a teacher's curriculum is perfectly aligned with a set of standards, meaning they're teaching exactly what they're told to, will students' test scores rise? That's the question a group of researchers set out to answer in "[Instructional Alignment as a Measure of Teaching Quality](#)."

Finding an answer to this is critical since better instructional alignment is a driving component of the Common Core.

Researchers at the University of Southern California and the University of Pennsylvania looked at 324 teachers in six large school districts (New York City; Dallas; Denver; Charlotte-Mecklenburg, N.C.; Memphis, Tenn.; and Hillsborough County, Fla.) in 2010.

Once the researchers created a measure for how closely aligned a teacher's curriculum was with standards, they examined the correlation of that alignment with teachers' ability to raise test scores (as measured by value-added models, which granted, have their own complications).

The results did not show a meaningful relationship between the two. Meaning, perfectly aligned curriculum is no more likely to be associated with gains in tests scores than perfectly *unaligned* curriculum.

3, 4) On The Higher-Ed Front

The big story in higher education in 2015 so far has been President Obama's proposal for two free years of community college. Two of the most-read education research articles of 2014 were focused on different aspects of community college.

In "[Labor Market Returns to Sub-Baccalaureate Credentials](#)," researchers from the Career Ladders Project and Columbia University spent seven years tracking more than 24,000 students in Washington state after they enrolled in community colleges during the 2001-2002 school year. At the end of the seven years, the researchers compared the wages and employment status across the different credentials the students earned. It's no surprise that the researchers found that those with associate degrees and long-term certificates were more likely to be employed and had higher earnings compared with a group that attended community college but didn't obtain a credential. We know that the more education you obtain, the better off you'll be.

But not every credential made students better off.

Individuals who earned short-term certificates (programs that last anywhere between a few weeks and a few months) were no more likely to see higher wages or better chances of employment than those who earned no credentials at all. That's alarming since the number of short-term certificates awarded increased dramatically between 2000 and 2010.

Community college students hoping to increase their earnings further likely require a bachelor's degree. But the path from community college to a four-year school is filled with "choke points."

That's the conclusion reached by the authors of [The Community College Route to the Bachelor's Degree](#)" at City University of New York. According to the researchers, 42 percent of students who transfer from community college lose between 10 percent and 100 percent of their credits, forcing them to start either anew or far behind.

But despite credit loss, students with associate degrees before transferring have similar graduation rates to those who begin at four-year schools. The researchers estimated that if community college students didn't lose credits during the transfer process, their average graduation rates would be 9 percentage points higher.

States like New Jersey have already taken steps to relieve this choke point by mandating that all for-credit courses earned at a state community college be accepted by state four-year colleges.

5) What SEL-Based Curriculum May And May Not Be Able To Do

When teachers spend time focusing and emphasizing social-emotional learning, or SEL, some may worry it may be at the expense of time spent on other subjects and that students' performance in those subjects may suffer. The findings from "[Efficacy of the Responsive Classroom Approach: Results from a 3-Year, Longitudinal Randomized Controlled Trial](#)," which looked at 276 classrooms in 24 schools, suggest otherwise. The researchers wanted to test whether a curriculum based on SEL could improve student performance in math and reading.

Based on [previous studies](#), the researchers expected to see the students that were exposed to such a curriculum outperform a similar group of students exposed to a more traditional curriculum.

But when the researchers analyzed the results they found that students in SEL-based classes on average performed the same on math and reading tests compared with the control group.

Not the results the researchers expected.

However, a subset of students with teachers using the curriculum *exactly* the way researchers designed it saw substantial gains in math and reading. This could be evidence that a curriculum approach based on SEL can have high returns, but only when teachers are trained extensively. Or, it could just be that teachers who are well-trained and follow directions are better teachers.

While you can't expect this research to cause policymakers and teachers to embrace SEL, it does show that if nothing else, there's no harm — as measured by student performance — in schools focusing on social-emotional learning.