SUSTAINING TEACHER TRAINING IN A SHIFTING ENVIRONMENT

Dan Goldhaber | National Center for Analysis of Longitudinal Data in Education Research (CALDER) and Center for Education Data and Research (CEDR) at the University of Washington
Matthew Ronfeldt | University of Michigan

Brief No. 7

This brief is one in a series aimed at providing K-12 education decision makers and advocates with an evidence base to ground discussions about how to best serve students during and following the novel coronavirus pandemic. Click here to learn more about the EdResearch for Recovery Project and view the set of COVID-19 response-and-recovery topic areas and practitioner-generated questions.

CENTRAL QUESTION

What research evidence exists on student teaching experiences that could inform how teacher preparation programs and school systems respond to the COVID-19 crisis?

KEY INSIGHTS

Breaking Down the Issue

- Student teaching placements influence teacher effectiveness. If student teaching experiences are constrained by the pandemic, teacher candidates may lose valuable experiences and schools may lose the opportunity to shape and evaluate prospective hires.

- Teacher preparation programs and student teaching experiences play a major role in determining where candidates take job placements, in ways that can influence both job markets and staffing shortages.

Strategies to Consider

- Teachers and teachers-in-training who participate in online practice teaching see significant improvements in teaching skills.

- School systems can provide in-service supports for new teachers whose student teaching experiences were interrupted or incomplete.

- Stronger partnerships between teacher preparation providers and remote districts have the potential to bring significant benefits, both for student teachers and for districts facing staffing shortages.

- Student teachers represent an important pool of additional talent for schools; creative deployment of student teachers could provide a major boost as the COVID-19 crisis continues.

Strategies to Avoid

- Low-quality teacher mentoring programs, as well as those that are not sustained across multiple years, are likely to be ineffective.

- Teacher effectiveness might show up differently in an online setting – so relying on past measures of teacher quality will likely be insufficient.

BREAKING DOWN THE ISSUE

Student teaching placements influence teacher effectiveness. If student teaching experiences are constrained by the pandemic, teacher candidates will lose valuable experiences and schools will lose the opportunity to shape and evaluate prospective hires.

■ **Teacher candidates who are placed in classrooms led by teachers with higher value added and observation ratings become more effective teachers and are more likely to persist in teaching.**

   ○ Multiple recent studies show (see here, here, and here) that teachers assigned to more instructionally effective mentor teachers (also known as cooperating teachers) as teacher candidates are more effective once they have classroom responsibilities of their own.

■ **Teacher candidates who are placed in classrooms that match those where they are likely to take a job in terms of both grade level and demographics become more effective teachers.**

   ○ Candidates who teach in schools that are demographically similar to the schools in which they are later employed are found to have more positive impacts on student achievement.
   ○ The alignment among specific classroom preservice, student teaching experiences, and first job experiences is also found to be predictive of value added as new teachers are more effective when they are teaching in the same grade (or school level), and in classrooms with similar demographics to their student teaching classroom.
   ○ Student teachers hired into the same school in which they did their student teaching have better first-year observation ratings.

■ **Measures of the positivity of the broader environment in the schools in which student teaching occurs (the culture of collaboration for instance) predict a teacher candidate's later in-service (value-added) impact on student test scores and retention.**

   ○ Research also finds that teachers learn from each other and are impacted by the value-added effectiveness of their colleagues.

Teacher preparation programs and student teaching experiences play a major role in determining where candidates take job placements in ways that can influence both job markets and staffing shortages.

■ **A significant proportion of teachers obtain their teaching credentials close to where they grew up, and then find first jobs close to both their homes and teacher preparation programs.**

   ○ A study of teachers in New York state finds that about 60% of teachers first taught in schools within 15 miles of their hometowns.
   ○ The localness of teacher labor markets is not just a phenomenon in particular states, but is also found in a nationwide study of teacher labor markets.
   ○ A study of teachers in Washington showed that about 15% of teachers are hired into the same school in which they student taught, and between 40% and 45% are hired into the same district (see here and here).

■ **Rural and remote schools – particularly those more distant from teacher preparation programs – tend to face more significant teacher staffing challenges.**

   ○ School systems that host a small share of student teachers are more likely to face staffing challenges.

STRATEGIES TO CONSIDER

Teachers and teachers-in-training who participate in online practice teaching see significant improvements in teaching skills.

■ **For student teachers, a recent randomized control trial found that mixed-reality simulations paired with coaching have positive effects on teaching skills.**

○ Mixed reality simulations pair online coaching with virtual teaching where the virtual students in the classroom are controlled by an "interactor" who has been trained to respond to the teacher in standardized ways.

○ In the recent study, student teachers who had been taught specific classroom management strategies participated in scenarios with students engaging in off-task behaviors. Student teachers who received virtual coaching demonstrated substantially greater improvements in redirection skills than those who received no additional coaching.

■ **Another randomized control study showed large, positive effects of receiving professional development through mixed reality simulations on in-service teachers' skill at facilitating student development.**

○ The study compared schools receiving professional development through a mixed-reality platform called "SIM PD" to schools that continued with their standard in-service models. In SIM PD schools, school and district mathematics coaches were trained to deliver professional development about questioning and facilitating student discourse practices through a combination of workshops, MRS, and professional learning communities.

○ Blinded, external raters evaluated teaching performance using a classroom practice observation rubric and rated teachers in the SIM PD group as demonstrating significantly and meaningfully (more than one standard deviation) better teaching during the intervention year and in the subsequent year.

School systems can provide in-service supports for new teachers whose student teaching experiences were interrupted or incomplete.

■ **High-quality mentoring for new teachers – defined both by the quantity of mentoring time and the qualifications of the mentor teachers, as measured by evaluation ratings – improves new teacher effectiveness.**

○ There is evidence that new teachers who receive more mentoring have higher value added, and also tend to have better retention (see here and here).

○ The quality of mentoring also matters. Two recent randomized control trials find that teacher candidates assigned to higher-quality mentor teachers achieve better clinical evaluation ratings and feel better prepared to teach.

○ A randomized control trial finds that purposeful matching of teachers facilitates learning. When higher and lower performing teachers are paired together to work on instructional improvement, the test achievement of students assigned to both (particularly the lower rated teachers) rises.

Stronger partnerships between teacher preparation providers and remote districts have the potential to bring significant benefits, both for student teachers and for districts facing staffing shortages.

■ **If schooling is online next year, there will be less value to student teaching placements that are geographically proximate to teacher preparation providers. The current crisis might allow remote districts facing teacher shortages to take advantage of the moment and create new partnerships with preparation programs across longer distances.**

○ Much of the evidence about teacher shortages suggests that the greatest issue is the distribution of teachers to certain districts rather than the overall number of teachers entering the profession. If these partnerships can move online, proximity to teacher preparation providers will matter less.

■ **Teacher candidates would also benefit from new relationships between teacher preparation providers and rural and remote school systems given that these partnerships offer access to additional effective mentors and enhanced job prospects in those districts.**

○ There is tremendous scope for change in mentor assignments since only about 3% of teachers serve as mentors in any year and rural and remote school systems have large numbers of effective teachers that are not mentoring.

Student teachers represent an important pool of additional talent for schools; creative deployment of student teachers could provide a major boost as the COVID-19 crisis continues.

■ **Studies in both Tennessee and Washington state find either positive effects or no effect on classrooms that host student teachers. Neither study finds evidence that hosting a classroom teacher is detrimental to either the students or to the mentor teacher.**

○ Teachers have similar effects on student achievement gains in years that they serve as cooperating teachers. Their observation ratings appear to be slightly stronger in years they serve as cooperating teachers.

■ **Schools may need additional adults to help protect against the spread of COVID-19 by keeping students socially distanced. Teacher candidates could serve as a key resource in this regard and give them valuable classroom experiences that would be beneficial as they pursue teaching careers.**

STRATEGIES TO AVOID

Low-quality teacher mentoring programs, as well as those that are not sustained across multiple years, are likely to be ineffective.

■ **While the findings on mentoring tend to be positive, the quality and sustainability of mentoring appears important. For example, a randomized control trial on a high-quality mentoring program only finds student achievement impacts for teachers who receive two years (rather than one) of mentoring support.**

Teacher effectiveness might show up differently in an online setting – so relying on past measures of teacher quality will likely be insufficient.

■ **Evidence suggests that placing student teachers with the most effective teachers pays off, however teacher effectiveness might shift in an online environment. Schools might consider monitoring teacher effectiveness in new ways if distance learning continues.**

FOR MORE INFORMATION

More evidence briefs can be found at the EdResearch for Recovery website. To receive updates and the latest briefs, sign up here.

Briefs in this series will address a broad range of COVID-19 challenges across five categories:

- Student Learning
- School Climate
- Supporting All Students
- Teachers
- Finances and Operations

This EdResearch for Recovery Project brief is a collaboration among the following organizations and institutions:

ANNENBERG
BROWN UNIVERSITY

RESULTS
FOR AMERICA

CEDR
Center for Education
Data & Research

NATIONAL CENTER for
ANALYSIS of LONGITUDINAL DATA
in EDUCATION RESEARCH
CALDER RESEARCH FOR POLICY

M | SCHOOL OF EDUCATION
UNIVERSITY OF MICHIGAN