

PREPARATION TO PRACTICE

Research on Improving Effectiveness
of Early-Career Teaching



Educator Preparation in Tennessee

Research indicates that teachers have a larger impact on student learning than any other in-school factor.¹ In recent years, Tennessee has made significant progress in expanding access to highly effective teaching across the state. Tennessee adopted a new multi-measure educator evaluation system that is focused on student outcomes; connected professional learning opportunities, compensation, and tenure to the teacher evaluation system; offered professional learning opportunities on Tennessee's State Standards; and developed innovative teacher leadership models. While state policymakers have focused some attention on evaluating and improving educator preparation programs (EPPs), improving educator preparation in order to advance effective teaching during an educator's first years in the classroom is one area where the state has yet to make widespread changes.

In October 2014, the Tennessee State Board of Education (SBE) adopted the Tennessee Educator Preparation Policy, which seeks to ensure that all EPPs meet rigorous standards established by the Council for the Accreditation of Educator Preparation (CAEP)—the national accrediting group—as well as Tennessee-specific criteria.² Since 2008, the Tennessee Higher Education Commission has released an annual report card on the effectiveness of EPPs in the state. In 2015, the SBE began producing this report; in the fall of 2016, the board will release a new version of the EPP report card with a greater emphasis on connecting educator preparation to student outcomes. These important initiatives lay the groundwork to advance effective teaching during an educator's first years in the classroom. However, much work remains to ensure that all students have access to highly effective teachers.³ The issue of equitable access is especially relevant for historically underserved students, since early-career teachers are more likely to teach them.⁴





KEY FINDINGS:

Studies mostly show weak positive associations between scores on academic tests, such as the ACT and SAT, and teaching effectiveness levels.

Possessing content knowledge, especially in math and science, has a small but positive effect on teaching effectiveness. More research is needed to determine the impact of pedagogy in predicting teaching effectiveness.

The quality of field experiences could improve teaching effectiveness of early-career teachers. Additionally, high-quality mentoring can enhance student teaching experiences.

There is no strong correlation between performance on licensure tests, such as Praxis, and teaching effectiveness. Efforts to raise licensure cut scores may disproportionately impact teaching candidates of color.

It is still too early to tell whether performance assessments can predict teaching effectiveness, but preliminary results are encouraging.

Why Educator Preparation Matters

Well-prepared teachers are essential for student achievement.⁵ Particularly with the adoption of more rigorous college- and career-ready standards, the rigor of EPPs must match the quality of classroom instruction expected in the field. Public school students across the country are also more racially and ethnically diverse, with students of color collectively now surpassing white student enrollment.⁶ Teachers must receive adequate preparation to meet the needs of these diverse learners. A growing field of research also suggests that better-prepared teachers are more likely to stay in the classroom.⁷

Although the scope of research on educator preparation is broad, this brief addresses five specific areas that could have a significant impact on advancing effective teaching during an educator's first years in the classroom. These areas include admission requirements, rigor of programs, clinical experience, licensure, and performance assessments. This brief highlights research in each of these areas and provides examples of promising local and state policies to improve educator preparation.



Research Findings

Studies mostly show weak positive associations between scores on academic tests, such as the ACT and SAT, and teaching effectiveness levels.

In one study, preparation programs rated most highly by the National Council on Teacher Quality for admission requirements (ACT of 24/SAT of 1120) were associated with increased effectiveness, on average.⁸ Other studies have found small positive associations.⁹ Still other studies have found no effect of teacher ACT/SAT test scores on teaching effectiveness.¹⁰ Although strong academic scores may be important, more factors should be taken into account than just ACT/SAT scores when selecting candidates. For instance, Teach For America (TFA), though highly selective, also includes several personality screenings of the program's candidates to learn how their dispositions may contribute to classroom success. Lipscomb University, in Nashville, conducts personal interviews with all teacher-training program applicants. A study of various pathways in North Carolina revealed that alternative entry teachers who were not in TFA were initially less effective in math and science than traditionally certified teachers. Thus, systematically reducing requirements for teacher candidates may prove harmful to student achievement, particularly in the first few years of a teacher's career.¹¹



Principals in Texas are required to complete surveys for teachers in their first year of teaching service. Surveys are only required for teachers who completed a Texas preparation program.

Possessing content knowledge, especially in math and science, has a small but positive effect on teaching effectiveness.

Research shows that content knowledge has a small association with teaching effectiveness, on average, often depending on students' age or grade level.¹² The benefits of content knowledge may lag one year as teachers adjust to their work in the first year.¹³ Because researchers typically use indirect measures that are associated with content mastery such as the number of courses taken as an undergraduate, the true nature of the relationship between content knowledge and teaching effectiveness is less clear. Effects of content knowledge are also clearer in math and science than in other content areas.¹⁴ Some researchers also suggest the increasing importance of analyzing pedagogical knowledge, or the knowledge of how to teach a subject with depth, rather than only subject-matter mastery.¹⁵

However, more research is needed to determine the impact of pedagogy in predicting teaching effectiveness.

Similar to content knowledge, pedagogical knowledge is difficult to measure without indirect measures such as licensure test scores.¹⁶ Few studies to date have identified definitive effects associated with pedagogical knowledge. Further, they generally have not differentiated which pedagogical skills are most important or the best ways to develop them.¹⁷ Ultimately, much more research is needed in this area to determine how much and under what conditions pedagogical instruction in preparation programs contributes to teacher effectiveness.¹⁸

The quality of field experiences could improve effectiveness of early-career teaching. Additionally, high-quality mentoring can enhance student teaching experiences.

Many researchers suggest length of field experience may not be as important as the quality of the experience.¹⁹ In one study, clinical experiences that incorporated a capstone project, oversight from the preparation program, and opportunities to engage in the practices of teaching throughout the preparation experience were associated with more successful first-year teachers, on average, according to student test gains.²⁰ Some researchers have also suggested that highly effective, actively engaged mentors can improve student teaching experiences.²¹ Furthermore, working in schools that are similar to where teacher candidates plan to teach later is associated with greater teaching effectiveness.²²

The Boston Teacher Residency (BTR) is a joint initiative of the Boston Public Schools (BPS) and the University of Massachusetts, Boston. Residents in the full-year program are in BPS classrooms with experienced mentor teachers four days per week and spend one evening and one full day per week on graduate-level coursework. Research has shown that BTR tends to recruit a more ethnically diverse group of teachers to the profession; its candidates are more likely to teach hard-to-staff subjects such as math and science, and they are also much more likely than other new teachers to stay in the classroom for at least five years.ⁱ

ⁱStephen Sawchuk. "Teacher Residents Seen Outpacing Peers in Later Years." EdWeek. Dec. 15, 2011. accessed June 29 2016 from <http://www.edweek.org/ew/articles/2011/12/15/15residency.h31.html>

There is no strong correlation between performance on licensure tests, such as Praxis, and teaching effectiveness. Efforts to raise licensure cut scores may disproportionately impact teaching candidates of color.

In one study, teachers who scored above average on licensure tests raised student test scores.²³ Another study similarly found that scores on the Praxis curriculum tests correlated with higher student outcomes, but there was also a risk for misidentifying teachers as a result of cut score policy changes. Some teachers who would have failed under a new policy were actually still highly effective, while other teachers who still would have passed under a new cut score were ineffective, as measured by student test data.²⁴ A 2004 study revealed that a change in test requirement laws did not correlate with an increase in GPA of education majors entering the field, nor did it correlate with increased composite ACT/SAT scores.²⁵ More significantly, emphasis on raising exam scores may compromise entry of diverse candidates—specifically African American and Hispanic candidates—into the field of teaching.²⁶

Sixteen states have developed their own state licensure tests as an alternative to the Praxis series. Since 1998, Massachusetts has required all teacher candidates to take and pass the **Massachusetts Tests for Educator Licensure**. State-developed licensure exams are more aligned to state standards. However, there are also concerns about the disparate racial impact of these tests, especially on African American and Hispanic teacher candidates.

It is still too early to tell whether performance assessments can predict teacher effectiveness, but preliminary results are encouraging.

Scholars suggest that performance assessments are more directly correlated with classroom practice than typical multiple-choice tests.²⁷ One performance assessment receiving significant attention is the edTPA. First developed at Stanford University and validated in 2013, edTPA has not been in use for very long; thus, few empirical studies have confirmed the test's ability to identify effectiveness.²⁸ Research on the Performance Assessment for California Teachers (PACT)—the state's performance assessment upon which edTPA was based—has shown that it is an effective predictor of teaching effectiveness in preliminary work.²⁹

A 2013 study, for example, revealed some predictive qualities of PACT, with those teachers who scored highest on PACT achieving greater gains on math and English language arts state tests than teachers with lower PACT scores.³⁰ A 2016 study analyzed the ability of edTPA to predict later teaching effectiveness and found some positive results. However, the authors also stressed that work analyzing edTPA is still in very early stages and needs to be developed more thoroughly to drive policy.³¹ Additionally, a recent analysis of edTPA test-takers revealed a disproportionate representation of white candidates taking the test. For example, in 2014, the large majority of candidates submitting edTPA portfolios were white (79.9 percent), followed by Hispanic (5.3 percent), Asian (4.1 percent) and African American (2.8 percent), making it difficult to establish differences in test performance across demographics.³² The overrepresentation of white candidates taking the edTPA makes it difficult to predict whether the assessment will disproportionately impact candidates of color.

In 2014, the **Louisiana Department of Education** launched the Believe and Prepare program, which awarded grants to school districts and preparation program providers that were developing and offering next-generation teacher preparation programs. Several of these pilots implemented year-long teaching residencies, while others reshaped the role of the mentor teacher.

Conclusion

Educator preparation programs play an important role in advancing effective teaching during an educator's first years in the classroom. Ongoing findings from research must continue to inform policies that Tennessee could consider. Moreover, additional research must be conducted on the use of licensure tests and performance assessments, especially as they relate to the impact on recruiting a teaching workforce that reflects the current and emerging racial and ethnic diversity of the state's student population. Although this brief demonstrates that much of the research around improving educator preparation remains in development, promising practices exist both in Tennessee and across the country. To advance teaching, policymakers, education preparation providers, and other key stakeholders must seize on this existing body of research and promising practices to guide improvements in educator preparation.



About SCORE

The State Collaborative on Reforming Education (SCORE) drives collaboration on policy and practice to ensure student success across Tennessee. We are an independent, nonprofit, and nonpartisan advocacy and research institution, founded in 2009 by Senator Bill Frist, MD, former U.S. Senate Majority Leader. SCORE works collaboratively to support K-12 education throughout Tennessee, and we measure our success by the academic growth of Tennessee's students.

End Notes

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