











Supporting and Assessing First-Year Teachers

Jennifer Mulhern Patrick Byrnett

TNTP

TeachingWorks working papers are unpublished manuscripts that focus on the professional training of teachers. They involve analysis of data or literature and reflect "good thinking" – clear, systematic interrogation of issues critical in the field of teacher training.

These working papers are circulated to promote discussion. As such they are freely available to a broad audience interested in the study and improvement of ideas and practices in teacher education.

TeachingWorks working papers are subject to a blind review process that focuses on the relevance of the proposed work to pressing problems in teacher education, the transparency and relevance of the methods to the questions asked, as well as the quality of the writing. All submissions should be original.

The views expressed herein are those of the authors and do not necessarily reflect the views of the University of Michigan and/or TeachingWorks.

Supporting and Assessing First-Year Teachers¹

Jennifer Mulhern Patrick Byrnett

TNTP

Jennifer Mulhern oversees TNTP's Assessment and Evaluation Department, which works to improve TNTP's efforts to select, train, support, and certify great teachers. Jen's team is pioneering new assessment services, including student surveys. Previously, Jen served as TNTP's Partner for Policy. In this role, she supervised site teams as they researched policy barriers to ensuring that all student have effective teachers. She is a co-author of the organization's 2005 report on the negative effects of forced placement, "Unintended Consequences: The Case for Reforming the Staffing Rules of Urban Teachers Union Contracts" and "The Widget Effect: Our National Failure to Acknowledge and Act on Differences in Teacher Effectiveness. In addition to her work at TNTP, Jennifer has also served as the Assistant Commissioner for Intergovernmental Services, where she led the agency's legislative agenda and served as the agency's primary liaison to elected officials. Jennifer holds a Master's from Harvard University and a BA from Haverford College.

Patrick Byrnett is a Partner for TNTP, contributing to its new teacher training programs and teacher preparation policy work. Previously, he worked with TNTP on designing and piloting teacher evaluation and development programs. He is a graduate of Georgetown University, Duke University's Sanford School of Public Policy, and the University of Virginia School of Law.

¹ This working paper is based in part of two existing TNTP reports: *Leap Year* (2013) and *Fast Start* (2014). For full versions of those reports and other TNTP publications, please visit http://tntp.org/publications.

Abstract:

Extensive research shows that a teacher's initial performance is a meaningful predictor of future performance, making a teacher's first year critical to their development and putting more responsibility on teacher preparation programs to produce teachers with the skills to be effective from day one. Over the course of several years, TNTP developed a new approach to teacher preparation, grounded in helping teachers master a core set of basic, essential instructional skills. This revamped approach to the training, support, and assessment of teacher candidates has demonstrated that it is possible to meaningfully assess and differentiate first-year teacher performance and make sound certification and retention decisions based on the evidence. Data from two years of this new approach reveal that new teachers perform at different levels and grow at different rates but can improve rapidly, and that while initial performance predicts future performance, responsiveness to feedback is critical to improvement over time.

INTRODUCTION

A consensus of research shows that the single largest in-school factor affecting student learning is teacher quality.² Yet it has become common practice to treat the first year of teaching as a warm-up lap, with the assumption that all new teachers struggle and that close analysis of their performance, with an eye towards future effectiveness, is not warranted. Extensive research, however, has shown that a teacher's initial performance is a meaningful predictor of future performance—far more so than commonly used proxies like academic credentials or pathways into the profession.³

A teacher's first year must be reconsidered as an opportunity to provide focused, critical feedback, to cultivate emerging strengths, and to make careful assessments about whether the teacher should be developed into a career educator or encouraged to pursue another career.

For teachers to make the most of this first year, it is crucial that teacher preparation programs—whether traditional or alternative—help teachers develop the building blocks necessary to maximize their own skills and abilities.

This working paper discusses how TNTP approaches the training, support, and assessment of our teacher candidates, from pre-service training through certification decisions (made at the end of the first year of teaching using our Assessment of Classroom Effectiveness, or ACE). We present the changes we have made to our curriculum and approach to better focus our efforts on rapid improvement and our assessments on how (and what) students learn. We share our early findings and recommendations that are applicable to all preparation programs, as well as questions we continue to research.

ABOUT TNTP TEACHING FELLOWS

Founded in 1997, TNTP is a national nonprofit dedicated to ending the injustice of educational inequity. TNTP works with schools, districts, and states to provide excellent teachers to the students who need them most and advance policies and practices that ensure effective teaching in every classroom.

Teacher recruitment has been TNTP's core work since it was founded. We operate a range of programs that bring high-quality teachers to high-need schools. We have recruited or trained approximately 50,000 teachers for urban classrooms, mainly in hard-to-staff subject areas, such as special education, math, science and bilingual education. The majority of these teachers have been prepared by our highly selective Teaching Fellows programs, which attract accomplished career changers and college graduates to teach in cities such as Baltimore, Chicago, Fort Worth, Memphis, Nashville, New Orleans, New York and Washington, D.C.⁴

As an alternative certification provider, TNTP Teaching Fellows programs begin working with teacher candidates in the summer before they begin teaching. Over the course of an intensive summer pre-service training program, candidates learn fundamentals of teaching from expert educators while putting them into practice in real summer classrooms. Candidates are

² See, for example, Rivkin, S., E. Hanushek, and J. Kain (2005). "Teachers, Schools, and Academic Achievement," Econometrica, 73(2), 417-458. Also see Sanders, W.L. and Rivers, J.C. (1996). "Research Project Report: Cumulative and Residual Effects of Teachers on Future Student Academic Achievement," University of Tennessee Value-Added Research and Assessment Center; and Rockoff, J. E. (2004). "The Impact of Individual Teachers on Students' Achievement: Evidence from Panel Data." American Economic Review 94(2), 247-52.

³ See Atteberry, A., Loeb, S., and Wyckoff, J. (2013) *Do first impressions matter? Improvement in early career teacher effectiveness*. CALDER Working Paper #90; Clotfelter, C., Ladd, C., & Vigdor, J. (2007); Teacher credentials and student achievement: Longitudinal analysis with student fixed effects. *Economics of Education Review, 26*(6), 673-682; Kane, T., Rockoff, J., & Staiger, D. (2008). What does certification tell us about teacher effectiveness? Evidence from New York City. *Economics of Education Review, 27*(6), 615-631; Gordon, R., Kane, T., & Staiger, D. (2006). Identifying effective teachers using performance on the job. *Discussion Paper 2006-01*. Washington, D.C.: Brookings Institution; and Staiger, D., & Rockoff, J. (2010). Searching for effective teachers with imperfect information. *Journal of Economic Perspectives, 24*(3), 97-118

⁴ For more information, see http://tntp.org/what-we-do/training.

responsible for securing positions at a local school. During the school year, candidates teach full-time while receiving personalized coaching and participating in seminars to better master teaching techniques. Candidates that sufficiently demonstrate classroom effectiveness are recommended for certification at the end of their first year of teaching.

With nearly 2,000 candidates across 11 sites in the 2013-14 school year, TNTP Teaching Fellows is one of the largest teacher preparation programs in the country.

REVISING OUR TRAINING AND SUPPORT: FAST START

Despite the research consensus on the importance of teacher effectiveness, the responsibility for delivering practical teacher development—training focused on skill rather than theory—to novice teachers too often falls on districts and schools. As a result, too many new teachers struggle to reach their students.

We should know. For more than a decade, our own preparation programs produced teachers who were no more or less effective than teachers from any other program—some were great, some were poor, most were about average. To us, these results were unacceptable. Our teachers were not nearly skilled enough to consistently help all their students achieve at high levels.

To address this, over the course of several years, we've worked hard to develop a new approach to teacher preparation. We began by setting clearer, higher expectations that our teachers need to meet in their first year in order to earn certification (discussed in further detail below). We knew that simply expecting more was not enough. We needed to help our teachers meet those expectations. To do that, we decided to rebuild our pre-service training program from the ground up, based on the latest research and our own experiences with tens of thousands of new teachers.

The result was an approach to teacher preparation we call Fast Start. It's radically different than the typical pre-service training program—and indeed, radically different than our own previous approach. Fast Start places a singular focus on helping teachers master a core set of basic, essential instructional skills. Instead of racing to cover every aspect of good teaching, Fast Start focuses on four skills teachers must master to be effective right away, and lays the foundation for learning more advanced skills down the road.

Fast Start is designed to give new teachers the tools they need to be successful from the moment they set foot in their classrooms. Like our previous approach to pre-service training, Fast Start is a five-week program, and teachers who complete Fast Start still participate in additional training during their first year. Nearly every other aspect of Fast Start, however, differs from our old model.

Focus

Like many programs, our old pre-service training provided a whirlwind tour of everything there is to know about teaching, on the assumption that the more information teachers can absorb during their training, the better off they'll be. Our old curriculum attempted to cover ten topics that encompassed everything from classroom culture to differentiated instruction to planning to broad out-of-classroom behaviors like "impacting change as a newcomer."

As we began to develop Fast Start, we tried a different approach: Discern which skills seem to make the biggest difference during a teacher's first year, and focus pre-service training on mastery of those skills.

We started by looking at evaluation results for thousands of teachers from several large school districts. Each place we looked, we found that fluency in the same basic skills—often related to classroom culture—separated new teachers who grew rapidly into effective practitioners from those who struggled or regressed. This was true whether we looked at our own teachers or those prepared by other programs.

TeachingWorks working papers Mulhern & Byrnett, April 2015

⁵ TNTP (2014). Fast Start: Training Teachers Faster with Focus, Practice and Feedback. Available at http://tntp.org/assets/documents/TNTP FastStart 2014.pdf.

Broadly speaking, the four key skills whose mastery had the greatest connection to first-year performance were:

- 1. Delivering lessons clearly
- 2. Maintaining high academic expectations
- 3. Maintaining high behavioral expectations
- 4. Maximizing instructional time

We could not have identified these key skills alone. Early in our work to build Fast Start, we went into the field to visit the educators and school leaders we admire most. We wanted to see if their experience on the ground matched what we were seeing in the data. We also wanted to know how they addressed the challenge of building fluency in basic teaching skills.

To that end, we formed a partnership with Uncommon Schools and its founder, Doug Lemov, the author of a best-selling textbook, *Teach Like a Champion*. Working with Doug and his Uncommon colleagues, we married the four Fast Start skills with the individual, practicable techniques outlined in *Teach Like a Champion*. These techniques became the heart of the Fast Start curriculum.

During the first year of Fast Start (summer 2012), we taught 17 of these techniques, spending about the same amount of time on each one. But when teachers entered the classroom, results showed that some techniques had a stronger relationship to on-the-job effectiveness than others. Teachers who mastered four of these techniques during pre-service were more likely to be successful in their classrooms right away. Those four techniques were:

- 100%: The expectation that the only acceptable percentage of students following a direction is 100 percent.
- Positive framing: Making corrections to student behavior consistently and positively.
- Strong voice: A way for teachers to establish authority in their classrooms.
- What to do: Providing students with specific, concrete, sequential and observable directions.⁷

Based on these results, we rewrote the curriculum we used during the summer of 2013. In the revised curriculum, teachers spend more than two-thirds of their time during pre-service training learning about and practicing these four techniques.

Narrowing our focus during pre-service training has two main benefits for our teachers: it gives them a clear picture of exactly what they should be able to do after they complete preservice training, and it lets them devote their full attention to each skill for long enough to actually become proficient in five weeks.

To be clear, our view is not that other teaching skills are inconsequential; it's that the fundamentals matter. Basketball players who cannot dribble and pass will not be very good at executing complex offensive plays. Likewise, teachers who have not mastered basic classroom culture or lesson delivery will not have a chance to master advanced instructional skills. This is just common sense.

Our goal with Fast Start is to gives teachers a solid foundation upon which they can build more advanced skills. We cover these advanced skills during the training we provide to our teachers over the course of their first year, and we preview them during pre-service training through coursework, videos and discussions. Getting the sequencing right means that we and our teachers are on the same page about which skills they need to master *now*, and which skills they will be working toward throughout their first year.

Practice

In a performance-based profession, you acquire a new skill mostly by practicing. A pianist learns a new piece of music by playing it over and over, not just by listening to it or studying it. A

⁶ TNTP (2014). Fast Start: Training Teachers Faster with Focus, Practice and Feedback. Available at http://tntp.org/assets/documents/TNTP FastStart 2014.pdf.

⁷ Lemov, D. (2010). *Teach Like a Champion*. San Francisco: Jossey-Bass.

golfer masters putting by practicing that skill on the course hundreds or thousands of times, not by just watching a video of someone who can already putt well. Emergency medical technicians don't just read about giving injections and using external defibrillators; they practice using them. In professions like these, getting it—understanding a new skill—is not the same as actually doing

Teaching is a performance-based profession, too, but often, it isn't treated that way. Our experience has taught us that in the absence of frequent, directed practice of basic techniques, many teachers do not find their way. For example, who hasn't seen a novice teacher whose lesson plans have become narrow and rote because his classroom management skills don't support more inventive lessons? We are doing no favors for new teachers by refusing to show them how to succeed.

With Fast Start, we changed not only what we teach during pre-service training (by narrowing our focus), but also how we teach it - with practice. Our approach builds on the work of experts inside and outside the education field, including our partners at Uncommon Schools.8

This focus on practice has fundamentally changed our pre-service training experience. For example, under our old training model, we asked teachers to think about how they would handle the various classroom management challenges they were likely to face and create a blueprint for how they would address them. The result, not surprisingly, was a lot of teachers who had thoughtful, thorough classroom management blueprints—and classrooms that did not reflect those plans.

In Fast Start, we start by showing teachers examples of what an effective classroom culture looks like (through video and modeling by instructors), and identifying the specific techniques they need to master. Then we immediately ask them to practice these techniques with their colleagues—not just once, but over and over, day after day. They practice until they can execute consistently. When we walk into the classrooms of teachers who have completed Fast Start, we usually find the kinds of environments they were prepared to create.

Our prospective teachers now spend at least 26 hours of their training practicing teaching skills (in addition to the hours they spend teaching in real summer school classrooms). Under our old model, participants didn't spend any time on this kind of hands-on practice. They did spend about eight hours of their coursework on role-playing and other less focused activities, but those were dispersed across a much wider range of skills and did not lead to mastery of specific techniques through repetition.

The result of all this practice is that crucial instructional techniques already start to become second nature to teachers by the end of pre-service training. This means that from their first day in the classroom, our teachers do not have to stop and think about basic decisions like when to give students a direction, where to stand during each part of the lesson, or how to correct minor misbehavior. Instead, they can devote more of their brainpower to making much more important decisions, like whether every student understood an explanation or how to re-teach something in a different way. Freeing up mental space to focus on what matters most is the real power of practice.

Feedback

Teachers cannot get the full benefit from practice without constant, individualized feedback from a second set of eyes. The same is true in every other performance-based profession. It's why athletes have coaches and actors have directors.

The problem is that when it comes to teacher preparation, coaching has a long history of delivering lackluster results. 9 School districts across the country spend a lot of money to run coaching and mentoring programs, but research suggests they do little to help teachers improve. 10 Teachers receive feedback that is too lengthy but also too general. Coaching

⁸ For more, see Lemov, D., Woolway, E., & Yezzi, K. (2012). *Practice Perfect.* San Francisco: Jossey-Bass; and Coyle, D. (2009). The Talent Code. New York: Bantam Dell.

For example, see Garet, M. et al. (2008), The Impact of Two Professional Development Interventions on Early Reading Instruction and Achievement. Washington, D.C.: National Center for Education Evaluation and Regional Assistance.

10 For example, see Knight, David (2012). Assessing the Cost of Instructional Coaching. Champaign, IL:

Journal of Education Finance.

conversations can be too long or complex to be useful. And coaches don't consistently follow up to ensure that teachers make the adjustments suggested.

Fortunately, when we scoured the country we found several promising coaching models. Paul Bambrick-Santoyo of Uncommon Schools advocates giving teachers specific, actionable feedback during coaching. ¹¹ Lee Canter's work with Real Time Teacher Coaching showed the power of helping teachers make adjustments in the middle of real lessons. ¹² The coaching and feedback models developed at Mastery Charter Schools, North Star Academy and MATCH Teacher Residency heavily influenced our approach. We also saw a natural opportunity to build what we had learned about practice into coaching.

The result was an approach to coaching in Fast Start built around three basic ideas, all designed to help teachers make progress toward mastering essential instructional skills:

- <u>Active observations</u>: When coaches visit our teachers' classrooms, they do not sit quietly
 in the back of the room. They circulate during a lesson and will even stop to model a
 particular skill. They will also intervene with more subtle techniques, such as holding up
 signs or whispering to prompt certain actions from the teacher.
- <u>Direct, specific feedback</u>: During lesson debriefs, coaches provide bite-sized feedback on one or two aspects of a teacher's performance—the one or two things they think will make the biggest difference the very next lesson. Coaches do not tell a teacher what to work on in general terms; they tell the teacher exactly what to do differently next time. The result: Teachers have a specific, manageable to-do list for their next lesson rather than a laundry list of issues to address.
- Immediate practice: Fast Start coaching conversations do not end after coaches deliver feedback. Teachers practice the new techniques they have agreed to try right away, in front of their coaches, until they feel comfortable they can really put them to use in their next lesson. Again, this is the difference between "getting it" and "doing it."

Under our old training model, prospective teachers did not receive one-on-one coaching beyond simply receiving feedback from classroom observations. Participants in Fast Start receive about 32 hours of one-on-one and small-group coaching.

IMPROVING OBSERVATION RUBRICS TO PROVIDE FOCUSED COACHING AND FEEDBACK

We were able to improve how we provide feedback to our teaching candidates, both during pre-service training and after in-service observations, by changing the framework we use to observe their classroom practice. Observations are the cornerstone of teacher evaluations (including our own, as described below), and most evaluation systems rely on the assumption that observations can serve as both a comprehensive teacher development tool and a comprehensive rating tool. But recent research and experience show that all too often, observations are not delivering on their promise.

As we reflected on our own observations—and the instructional framework used to conduct them—we identified two major areas for improvement:

- Assess what is taught, not just how it is taught: Previously, our rubric focused almost
 exclusively on how teachers delivered instruction, without addressing whether the lesson
 included the right content. Though teachers often do not have complete autonomy over
 the curriculum they teach, observers needed tools to help them make efficient judgments
 about whether lessons helped students master grade-appropriate standards.
- <u>Streamline rubrics to focus on what matters</u>: Though our rubric was shorter than many, it still sought to be comprehensive and include most elements of successful teaching

¹¹ For more details, see Bambrick-Santoyo. (2012). *Leverage Leadership: A Practical Guide to Building Exceptional Schools*. San Francisco: Jossey-Bass.

¹² For more, see http://www.transformativeteachertraining.com

practice. Observers' time is better spent focusing on a small number of essential components. Most importantly, observers should focus on the outcomes teachers are responsible for producing in a lesson rather than the strategies that can help them achieve those outcomes. The former should be used for assessment; the latter for feedback and coaching.

We published these findings in a report, *Fixing Classroom Observations*¹³, but also put them into practice for our own programs. Beginning in the 2014-15 school year, the observation rubric used for ACE evaluations focuses the attention of observers onto only four essential questions:

- <u>Student Engagement</u>: Are all students engaged in the work of the lesson from start to finish?
- <u>Essential Content</u>: Are all students working with content aligned to the appropriate standards for their subject and grade?
- <u>Academic Ownership</u>: Are all students responsible for doing the thinking in the classroom?
- Demonstration of Learning: Do all students demonstrate that they are learning?

Figure 1 summarizes the primary differences between the observation rubrics used by ACE observers in recent years.

Original ACE Rubric Revised ACE Rubric Ten competencies across Seven competencies across Four performance areas that three domains (Instruction. two domains (Instruction and each encompass instruction. Culture, Planning) Culture) culture, and planning Numerous indicators within Subset of indicators Single clear "Essential Question" for each each competency emphasized for formative performance area observations Descriptions of performance at each level that focused on Descriptions of performance Descriptions of performance teacher actions at each level that focused on that focus on student actions teacher actions Suggestions of Core Teaching Requisite expectations for skills or behaviors of teachers Skills for feedback

Figure 1: Evolution of classroom observation frameworks used for Assessment of Classroom Effectiveness (ACE).

USING FORMAL EVALUATION TO FUEL FORMATIVE FEEDBACK

We built and implemented ACE to hold our teachers and ourselves accountable for their classroom performance. ACE is a multiple-measure performance assessment designed to monitor and support a teacher's effectiveness during his or her first year in the classroom. TNTP uses a combination of four primary data sources to calculate teachers' ACE scores:

TeachingWorks working papers Mulhern & Byrnett, April 2015

¹³ TNTP (2013). *Fixing Classroom Observations*. Available at http://tntp.org/assets/documents/TNTP_FixingClassroomObservations_2013.pdf.

- <u>Classroom Observations</u>: Research shows that classroom observations are a valid predictor of teacher effectiveness and student learning gains. Teacher candidates receive a minimum of four observations from trained observers throughout the school year. To ensure fairness and reliability, we give observers 30-40 hours of training and assign multiple observers to visit teachers wherever possible. We regularly conduct norming exercises with observers to ensure consistent scores in line with our standards.
- <u>Student Surveys</u>: Similarly, the Measures of Effective Teaching (MET) study found a significant relationship between student perceptions of their teachers and achievement gains. ¹⁴ The study found that the average student—who has the most direct experience with the teacher—knows effective teaching when they see it. ¹⁵ TNTP administers surveys to students in February or March.
- <u>Principal Ratings:</u> Principals have an important perspective on each teacher's performance; ideally, they see their teachers' classroom practice regularly throughout the year. Principals may also have a strong perspective on each candidate's contributions outside of the classroom. TNTP asks each candidate's principal to evaluate them in comparison to other first-year teachers the principal has worked with in their career.
- <u>Student Achievement Data</u>: As student success is the ultimate metric for teacher effectiveness, where available, TNTP uses student achievement data as an additional measure.

Component weights vary based on which components are available to assess a candidate's performance:

Table 1: Component Weighting for Each ACE Group							
	Approx. % of candidate pool	Observation Scores	Principal Ratings	Student Survey Data	Value-Added Data		
Group 1	40	60	40	N/A	N/A		
Group 2	40	30	40	30	N/A		
Group 3	18	25	20	20	35		
Group 4	2	35	30	N/A	35		

Though the primary purpose of ACE is to determine whether to recommend candidates for certification, TNTP also strives to use all data available during the school year to provide formative feedback that can enable candidates to grow during their first year.

The largest source of mid-year data comes from classroom observations. Candidates receive score reports from ACE observations approximately one week after each observation. These reports include ratings in each of the four performance areas within the ACE Instructional Framework, as well as an overall observation score. Importantly, each report includes specific evidence from the observed lesson that explains how the observer arrived at each performance area rating.

TNTP expects these reports to provide formative value to candidates in three ways:

• TNTP encourages candidates to reflect on the evidence cited to consider their strengths and weaknesses and to identify steps they can take to continue building skills.

TeachingWorks working papers Mulhern & Byrnett, April 2015

11

^{14 &}quot;Learning about Teaching: Initial Findings from the Measures of Effective Teaching" Bill & Melinda Gates Foundation, December 2010. (http://www.metproject.org/downloads/Preliminary_Findings-Research_Paper.pdf)
15 TNTP does not administer student surroughts to the above of the control of the c

¹⁵ TNTP does not administer student surveys to teachers of grades K-2 or working with students with moderate to severe special education needs.

- As described above, TNTP staff use evidence from these reports to customize training and coaching to address high-priority development areas.
- Finally, TNTP also provides copies of these reports to each candidate's principal to supplement school-based efforts to coach and support new teachers.

Candidates also receive a detailed report about their students' responses to student survey items. While individual student responses remain confidential, candidates see aggregate responses for each survey questions to help identify areas of strength and development. The individualized feedback from student surveys also enables our program—and participants themselves—to assess their ability to meet diverse needs and establish a strong culture of learning, with a specific focus on creating a caring environment in classrooms.

Teachers who progress to our standard are recommended for certification. Those who struggle are given time and support to improve, but in the end are denied certification and removed from the classroom if they do not meet performance standards. In the 2013-14 school year, 84 percent of teachers who participated in ACE earned certification, 8 percent were put on extension plans and given another year to improve, and 9 percent were removed from the program.

RESULTS TO DATE

New teachers perform at different levels and grow at different rates, but can improve rapidly.

Recent research looking solely at teacher value-added scores found that even carefully selected first-year teachers perform at different levels and grow on different development trajectories. ¹⁶ We found that patterns are much the same on classroom observations and student surveys, based on data from the 2011-12 school year:

- Student survey data showed diverse outcomes, though teachers were more likely to receive positive ratings on our five-category scale. About 56 percent of teachers received a "developing" rating, while 37 percent were rated "proficient." About 6 percent were rated "ineffective" or "minimally effective," while just 1 percent were rated "skillful."
- Data from classroom observations showed that individual teachers grew at very different rates. Most teachers improved fairly quickly throughout the year, based on a series of three observations starting in January and concluding in the spring. On average, teachers gained about 0.20 points on a 5-point scale on each observation—a statistically significant increase.
- However, feedback did not always lead to improvement. Some teachers grew very slowly, if at all. About 12 percent began the year with very weak skills and improved, but not enough to earn observation scores higher than "Minimally Effective." Three out of four of those teachers failed to pass ACE.
- In addition, among the 54 teachers denied certification at the end of the year, one in four
 actually showed a negative growth trajectory—and that was after getting off to an already
 weak start.

Evidence from pre-service training further shows that teachers can improve rapidly during even a five-week pre-service training program if given enough opportunities to practice basic skills. Most teachers who participated in Fast Start made dramatic progress on the four key skills over the course of pre-service training. After their first week of training, only about a quarter of candidates earned a passing score on each of the four skills, but that percentage more than doubled—and in some cases tripled—by the end of training.

¹⁶ See Atteberry, A., Loeb, S., and Wyckoff, J. (2013) *Do first impressions matter? Improvement in early career teacher effectiveness.* CALDER Working Paper #90. In that study, while many new teachers grew significantly in their early years, new teachers who began weakly did not improve enough to recover from a poor start. Teachers in the bottom quintile in the first two years were still likely to be in the lowest quintile five years later.

It is true that, on average, new teachers improve as they gain experience. But some do not, and some improve much faster than others. Experience does not guarantee a certain level of effectiveness, which makes measuring first-year teacher performance so critical.

Multiple measures tend to point to the same conclusion, but offer unique insight

Results from classroom observations, student surveys, and principal ratings were positively correlated in ACE, just as they were in the recent Measures of Effective Teaching Project (MET) study.¹⁷ A teacher who earned strong marks on one measure tended to earn strong marks on all.

Table 2: Correlation of ACE components, not including value-added data.							
	2012-2013						
	Observations	Student Surveys	Principal Ratings				
Observations							
Student Surveys	0.34 ***						
Principal Ratings	0.49 ***	0.31 ***					
		2013-2014					
	Observations	Student Surveys	Principal Ratings				
Observations							
Student Surveys	0.44 ***						
Principal Ratings	0.48 ***	0.37 ***					

^{***} All correlations are significantly different than 0 at the p<0.001 level. For all correlations involving observations, only teachers with the minimum number of observations for their year are included. Only teachers with at least 15 students surveyed are included for correlations involving student surveys. Only sites active in both years re included. For observations and student surveys, composite score were used. All correlations involving principal ratings are polychoric.

At the same time, however, a teacher's performance on each measure was not uniform. Teachers earned slightly different scores on each measure, allowing us to get a nuanced picture of individual strengths, weaknesses and overall effectiveness. And, just as important, by having their performance evaluated along multiple measures throughout the year, including regular and rigorous classroom observations, they received feedback that could help them improve.

Initial performance predicts future performance, but responsiveness to feedback is key

As we monitored our teachers throughout the year, we found that their initial performance was a reliable signal of their growth trajectory and overall outcomes.

Teachers who passed ACE started the program with significantly higher initial observation scores than those who were eventually extended or removed without certification—not only because they had higher scores at the start, but because they continued to outscore their peers in each successive round. The passing teachers had an average score of 3.14 on the first observation, while both the extension and removal groups scored around 2.50 on average.

TeachingWorks working papers Mulhern & Byrnett, April 2015

13

¹⁷ Bill & Melinda Gates Foundation. (2010). *Learning about Teaching: Initial Findings from the Measures of Effective Teaching Project.*

¹⁸ Teachers who are in the top quintile on initial observation scores score, on average, about 0.6 points higher in round 2, and about 0.5 points higher in round 3. An analysis of variance showed these significant

In other words, teachers who eventually passed ACE entered the observation phase of their year already scoring, on average, as "developing". Meanwhile, teachers who did not pass ACE were considered "minimally effective," on average, during their initial observation.

We found similar trends when we compared pre-service training performance to ACE results. Nearly three-quarters of the top performers during the first year of Fast Start—those who scored in the top quartile of pre-service training in summer 2012—went on to pass ACE. Twenty-two percent of those teachers passed "with distinction," the highest possible rating for first-year performance. Among teachers who scored in the lowest quartile during pre-service training, however, only 31 percent passed ACE, and only 6 percent did so "with distinction." We have found similar trends for individual components of ACE; candidates in the top quartile of pre-service performance tend to receive higher ratings from their principals and students, not just classroom observation scores.

We looked for trends in classroom observation data, to determine common qualities among teachers who advanced quickly. One indicator on the ACE observation rubric was an especially powerful predictor of a teacher's growth. Teachers who earned scores of 4 or 5 on "Facilitates organized, student-centered, objective-driven lessons" improved more quickly than those who earned a 3. Those who earned especially low scores of 1 or 2 on this indicator had negative growth trajectories, losing 0.10 points per observation throughout the year.

We believe this measure was especially revealing because it encompasses a host of skills that undergird effective teaching: responsiveness, organization and content expertise. In our experience, teachers who can forecast and respond to student needs, present structured lessons and draw on a rich understanding of content to engage higher-order thinking skills are more likely to be successful.

In addition, we collected anecdotal evidence from our staff at various ACE sites to identify other factors that seemed to distinguish developing teachers from those who showed little growth. Teachers who could apply feedback from their observations tended to be more successful, while those who attributed weaknesses in their performance to school- or student-based factors tended to struggle longer. A teacher's willingness to take ownership of performance and respond with clear strategies to improve seems to signal future success in the classroom.

Our extension plan program provided another opportunity to see how well ACE predicted future teacher performance. We granted 120 teachers who could not pass ACE outright but showed some potential the option to return for another year, and 88 teachers, or 73 percent, did. These teachers have so far continued to struggle in their second year; in fact, on average, their performance deteriorated. Extension plan teachers had a mean observation score of 2.81 at the end of their first year. As of January of their second year, their mean observation score had dropped to 2.72—not only lower than their earlier average, but also lower than the average score of 2.80 for current ACE teachers in their first year. After more than a year in the classroom, not a single extension plan teacher earned a passing observation score in the "Proficient" or "Skillful" categories.

On average, extension plan teachers improved at about one-third the rate of the average ACE participant: by just 0.07 points between each observation round, compared to 0.20 points. In other words, when we compared observation score data for both groups after their second observation in January, most teachers on extension plans had improved less in nearly two years than most first-year teachers had after during just part of a single school year.

Substantial opportunities for continued learning remain

While our findings to date offer promising beginnings for our own programs and, we hope, other preparation programs, we believe the data available to us via ACE will enable us to address more questions in the years going forward:

differences: Teachers who passed scored 0.59 points higher than those who were extended and 0.64 points higher than those who were removed. F(2, 999)=80.62, p<0.001.

¹⁹ Teachers on an extension plan received two observations, conducted between September and February using video. Videographers visited classrooms, taped lessons and submitted them for scoring. Two trained observers scored each video, and teachers received the average of the two observers' scores.

- <u>Selection</u>: TNTP has prided itself on being a highly selective certifying body, and public policy in many states encourages programs to adopt more selective criteria before candidates begin teacher training programs. However, with improved approaches to training and coaching, can preparation programs actually bring in broader initial candidate pool and use the training process to identify those who can achieve strong results for students?
- Continued Effectiveness: While we are confident in our initial certification decisions, we
 do not yet know whether the candidates we certify continue to demonstrate effectiveness
 in years to come. As states increasingly look to hold preparation programs accountable
 for the effectiveness of their graduates, what can we learn about the continued
 effectiveness (and growth) of candidates beyond the first year?
- <u>Targeted Support</u>: Given limited resources and the principle of focused support, is there
 an ideal timing and/or target population of teacher candidates who should receive
 coaching to obtain the greatest net improvement?
- Shifts in Coursework: As certification coursework shifts to be more aligned to the Common Core—both within our own TNTP Academy and in other programs—will candidates demonstrate better effectiveness in observations, particularly in the Essential Content component?
- <u>Student Work</u>: How can we train teachers (and coaches, school leaders, and mentors) to use student work to assess what students know and don't know, and give meaningful feedback to teaching candidates using student work?

SUMMARY AND RECOMMENDATIONS

Set clear expectations for performance and growth

We believe that all teacher preparation programs—ours included—should take on the responsibility for their teachers reaching an acceptable level of effectiveness. Our findings show that it is possible to meaningfully assess and differentiate first-year teacher performance and make sound certification and retention decisions based on the evidence. Early-career teaching should be considered a learning period, but one with high standards based on an expectation of rapid growth. Teachers should not be awarded certification until they have spent sufficient time in the classroom to demonstrate their ability to become effective.

By the end of their first year, teachers should be able to create a positive classroom culture, manage student behavior and lead lessons in which the learning objective is clear. In addition, they should be responsive to feedback, and able to show that they are mastering and building on the crucial skills that set them up for long-term success: clearly delivering content, maintaining high expectations for students and maximizing instructional time.

Pay close attention—starting on day one—to what matters most to your program

As noted above, evidence collected on novice teachers during even the earliest stages of their training is powerful; beyond its predictive power of long-term effectiveness, it enables preparation programs to tailor the support and guidance they provide to teacher candidates to help them grow rapidly. By giving candidates clear feedback aligned to the basic skills we expect them to master at each stage of their training, we have been able to identify at early stages the candidates who are likely to persistently struggle, as well as those who face only one skill barrier to readiness.

We believe preparation providers should move past our instinct to sprinkle new teachers with all possible wisdom and instead focus on the concrete skills needed to be effective right away. To do this, we need to be disciplined about the feedback that we give to new teachers and focus on targeted, specific and immediate interventions. TNTP has elected to focus on the skills and competencies listed in our Core Teaching Rubric.²⁰ While other programs may come to different conclusions as to what constitutes a short list of basic competencies, narrowing the

TeachingWorks working papers Mulhern & Byrnett, April 2015

²⁰ See TNTP Core Teaching Rubric, available at http://tntp.org/publications/view/tntp-core-teaching-rubric-a-tool-for-conducting-classroom-observations

focus to no more than 10 competencies allows first-year teachers to practice and improve quickly in those areas.

Use multiple measures for formative assessment and feedback

Value-added scores are a powerful predictor of a teacher's future performance.²¹ We believe they should be an integral part of evaluations whenever possible. But in their present form, they do not apply to the majority of teachers.

Other student-focused measures like frequent, high-quality observations from multiple external observers and student surveys are correlated with student achievement and can be collected for the vast majority of teachers. These measures can reliably capture real differences in a teacher's performance and professional growth.

Schools and preparation programs should base certification decisions on performance, even if value-added data is available for some, though not all, teachers. We need better information for more teachers, both from value-added data but also from the measures like student surveys and observations that are readily available today. Our experience shows that it is possible to move forward with rigorous evaluations even when student achievement data are not always or immediately available.

Focus on the most essential teaching skills

New teachers should concentrate on the skills that matter most for their future success. They need support around the basics: establishing a positive classroom culture and creating a sustainable classroom management style. Those who master these competencies quickly are soon able to develop more advanced skills, such as facilitating engaging lessons and calling on students' higher-order thinking skills.

Narrowing the focus to essential competencies—such as the four essential questions included in our latest ACE Instructional Framework—allows first-year teachers to practice and improve quickly in those areas. Providing frequent, specific feedback on these targeted skills is essential, not only to help first-year teachers improve, but also to determine whether they can continually learn and grow—a hallmark of effective teachers. First-year teachers should show evidence that they are hearing and responding to feedback throughout the year.

Such focus can also make for stronger professional development opportunities at the outset of a teacher's career. To do this, we need to be disciplined about the feedback that we give to new teachers and focus on targeted, specific and immediate interventions. We must link evaluation to development, so that teachers no longer receive a one-size-fits-all development program but instead drive their own development using information from observations and other sources of data to target specific practices that can lead to greater student learning.

Make honest retention decisions

Over the years, some preparation programs (including our own) have spent enormous amounts of time and energy perfecting their selection models—trying to predict who will be an effective teacher based on an application, an interview, and maybe a sample lesson. Selection into a preparation program has been the main door to the teaching profession; once teachers are admitted, they are essentially guaranteed teaching positions as long as they complete a certain number of hours of coursework and the required exams.

The problem is that no preparation program has found a way to consistently identify effective teachers without actually seeing them teach. Even the most selective programs often produce teachers that are no more effective, on average, than teachers from less selective programs.²²

But training is different. Evidence of a teacher's performance during pre-service training does have a relationship to on-the-job success. In fact, we've found that performance during Fast

²¹ Bill & Melinda Gates Foundation (2010). *Learning about Teaching: Initial Findings from the Measures of Effective Teaching Project.*

²² Koedel, C., Parsons, E., Podgursky, M., & Ehlert, M. (2012). *Teacher Preparation Programs and Teacher Quality: Are There Real Differences Across Programs?* (CALDER Working Paper 79). Washington, D.C.: The Urban Institute.

Start pre-service training explains nearly three times as much of a teacher's overall first-year performance compared to selection criteria.

That's why we now place much more emphasis on how teachers perform during preservice training and have integrated it into our selection process. Prospective teachers must still meet rigorous minimum standards to earn an invitation to pre-service training, but we are much more willing than we have been in the past to give people a tryout. We do not want to risk shutting out capable candidates who might have what it takes to be great teachers. But we cannot risk putting unprepared teachers into classrooms.

Preparation programs clearly have an obligation to help teachers become effective. At the same time, it is unreasonable to expect that 100 percent of teachers will successfully complete pre-service training. Teaching—especially in high-need schools—is extraordinarily difficult. Some people simply are not cut out to do the hard work of teaching, and it's very challenging to identify those people without seeing them teach. Programs should hold themselves to high standards when it comes to developing teachers, but they should also hold a high bar when it comes to recommending participants for full-time teaching positions—and make that bar clear to participants from the very beginning of pre-service training.

References

- Atteberry, A., Loeb, S., and Wyckoff, J. (2013) *Do first impressions matter? Improvement in early career teacher effectiveness*. CALDER Working Paper #90.
- Bambrick-Santoyo. (2012). Leverage Leadership: A Practical Guide to Building Exceptional Schools. San Francisco: Jossey-Bass.
- Clotfelter, C., Ladd, C., & Vigdor, J. (2007); Teacher credentials and student achievement: Longitudinal analysis with student fixed effects. *Economics of Education Review, 26*(6), 673-682.
- Coyle, D. (2009). The Talent Code. New York: Bantam Dell.
- Garet, M. et al. (2008). The Impact of Two Professional Development Interventions on Early Reading Instruction and Achievement. Washington, D.C.: National Center for Education Evaluation and Regional Assistance.
- Gates Foundation. (2010). Learning about Teaching: Initial Findings from the Measures of Effective Teaching Project.
- Gordon, R., Kane, T., & Staiger, D. (2006). Identifying effective teachers using performance on the job. *Discussion Paper 2006-01*. Washington, D.C.: Brookings Institution.
- Kane, T., Rockoff, J., & Staiger, D. (2008). What does certification tell us about teacher effectiveness? Evidence from New York City. *Economics of Education Review*, *27*(6), 615-63.
- Knight, David (2012). Assessing the Cost of Instructional Coaching. Champaign, IL: Journal of Education Finance.
- Koedel, C., Parsons, E., Podgursky, M., & Ehlert, M. (2012). *Teacher Preparation Programs and Teacher Quality: Are There Real Differences Across Programs?* (CALDER Working Paper 79). Washington, D.C.: The Urban Institute.
- Lemov, D. (2010). Teach Like a Champion. San Francisco: Jossey-Bass.
- Lemov, D., Woolway, E., & Yezzi, K. (2012). Practice Perfect. San Francisco: Jossey-Bass.
- Rivkin, S., E. Hanushek, and J. Kain (2005). "Teachers, Schools, and Academic Achievement," Econometrica, 73(2), 417-458.
- Rockoff, J. E. (2004). "The Impact of Individual Teachers on Students' Achievement: Evidence from Panel Data." American Economic Review 94(2), 247-52.
- Sanders, W.L. and Rivers, J.C. (1996). "Research Project Report: Cumulative and Residual Effects of Teachers on Future Student Academic Achievement," University of Tennessee Value-Added Research and Assessment Center.
- Staiger, D., & Rockoff, J. (2010). Searching for effective teachers with imperfect information. *Journal of Economic Perspectives*, 24(3), 97-118.
- TNTP (2013). Leap Year: Assessing and Supporting Effective First-Year Teachers. Available at http://tntp.org/publications/view/teacher-training-and-classroom-practice/leap-year-assessing-and-supporting-effective-first-year-teachers.
- TNTP. (2013). Fixing Classroom Observations. Available at http://tntp.org/assets/documents/TNTP FixingClassroomObservations 2013.pdf.
- TNTP (2014). Fast Start: Training Better Teachers Faster, with Focus, Practice and Feedback. Available at http://tntp.org/publications/view/teacher-training-and-classroom-practice/fast-start-training-better-teachers-faster-with-focus-practice-and-feedback.