Overview

Over the past decade, numerous studies have provided incontrovertible proof that the single most important factor affecting student achievement in a school building is the quality of the teacher standing in front of the classroom. In schools across the country, teachers working in the same building, teaching the same grade, produce dramatically different outcomes. Stanford economist Eric Hanushek found that while the top five percent of teachers were able to impart a year and a half’s worth of learning to students in one school year, the weakest five percent advanced their students by only half a year in the same period.

Once the field came to understand the impact of a great teacher in the classroom, attention turned to uncovering what made those teachers so effective. We know that great teachers have a deep content expertise in their subject matter, as well as very strong verbal and math skills. Additionally, great teachers are able to understand and respond to a classroom of students that may or may not initially grasp the material as it is presented to them.

We can precisely identify the components of great teaching.

Knowing content and knowing how to teach content still aren’t enough. A teacher must also manage a classroom of thirty students, keeping them engaged, attentive, AND excited about learning. The education field has begun to identify the concrete practices teachers can implement to get their students engaged, attentive, and excited.

Doug Lemov, a charter school leader in New York, observed excellent teachers all across the country and codified a “taxonomy” of the specific (and teachable) things great teachers do that make them great. These are universal strategies, irrespective of course content or knowledge – setting and managing expectations, gaining and holding students’ attention – that comprise the fundamental mechanics of teaching.

So how do we get from high-potential to high-performing?

Once we have high-potential teachers in the classroom, they must learn the instructional and management techniques and the skills that they will need to become truly great. Because we also know now what we didn’t know in the not-so-distant past: great teachers are made, not born.

Research indicates that highly effective teachers:

1. Have strong verbal and math skills
2. Have at least 1-2 years of teaching experience
3. Are content experts in their subject areas
4. Employ content-specific teaching methods (pedagogy), effectively transmitting knowledge to students with a range of perspectives and skill levels

Analysis of test data from Tennessee showed that teacher quality affected student performance more than any other variable: on average, two students with average performance (50th percentile) would diverge by more than 50 percentile points over a three year period depending on the teacher they were assigned.

Source: Sanders & Rivers Cumulative and Residual Effects on Future Student Academic Achievement, McKinsey
Great teachers are not born great. They are taught the knowledge and skills to become great.

So what professional development programs and strategies should schools and school districts employ to create this level of excellence? Professional development is post-BA, post-certification, post-placement training to increase effectiveness and develop a breadth of skills. Successful professional development programs focus on shifting teacher practice.

Common themes suggestive of strong professional development include:

- Professional development that is sustained and intensive: Professional development is ongoing, often job-embedded training, for example, involving regular communication with a mentor teacher or instructional coach who observes a newer teacher and provides real-time feedback on strengths and weaknesses.

- Training that focuses on student learning and maintains a direct connection to teaching specific academic content: Professional development that is connected to academic content includes analysis of student performance data – figuring out how to identify common errors, identifying what it takes for students to achieve mastery, and determining how to tweak practice.

- Effective professional development must be integrated into a school’s vision: Strategies that align with the school’s improvement priorities and goals for instruction, assessment and management, and are consistent with the school’s philosophy on teaching and learning.

- Professional development should foster a professional community: The “professional community” is rapidly evolving beyond even the four walls of a school, with open-source resource libraries that allow teachers across the country to share effective curricular materials, watch videos of lessons by expert teachers, share best practice strategies, and more.

Research has also given us some of the surprising answers to what does not correlate to better teaching and better professional development – from high SAT scores and a Master’s Degree to short-term conferences and re-certification workshops.

"Having a top quartile teacher rather than a bottom-quartile teacher four years in a row could be enough to close the black-white test score gap."

Gordon, Kane, & Staiger, 2006

WHAT FUNDERS NEED TO KNOW

What can funders do with this knowledge? Bill Gates wanted to understand what makes an effective teacher in order to invest in improving teaching quality, so he enticed Harvard economist Thomas Kane to take a leave from the university to work on a $335 million Gates Foundation project that will identify and support effective classroom teaching practices. Most of us can’t do that. But we can ask questions, look for evidence that schools set high expectations for teacher excellence, and offer the types of professional development opportunities that research demonstrates makes a difference for teachers – allowing them to make a difference in the lives of their students.

Checklist for effective professional development

- Heavy dose of professional development (min. 100 hrs/yr)
- School-based, job-embedded
- Focused on content – and how to teach it
- Regular practice of skills, strategies, and techniques learned
- Integrated into school practice and systems, particularly teacher evaluation