# TeachUNITED

Professional Learning Design & Research Basis Brief

Professional Learning for Teachers to Improve Equity

Research has shown again and again that teachers are the key driver for student learning, more than any other educational intervention. With a goal to reduce global inequality through education, TeachUNITED uses professional learning as the intervention for the greatest impact on the most students.

Teacher effectiveness in the classroom impacts student academic achievement, student college attendance, and future earnings. Teachers are the single most dominant factor affecting student academic gains.[1] As teacher effectiveness increases, lower achieving students are the first to benefit. The effects of teacher quality on student achievement is cumulative and additive, meaning a student's achievement scores can be impacted by a highly effective teacher for years to come.
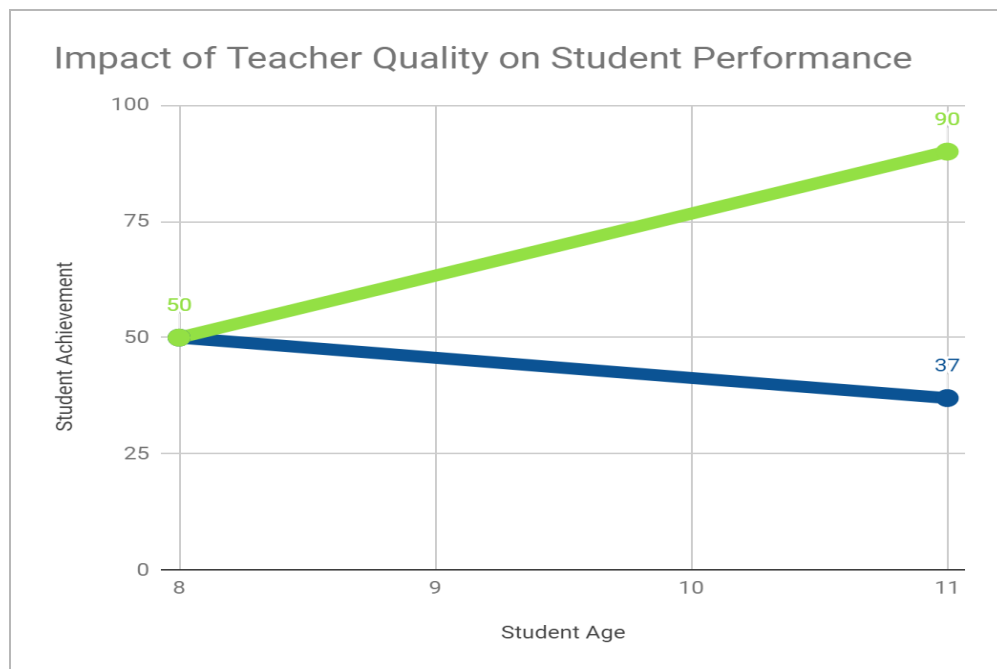
Teacher quality is also just as meaningful for students' attendance, suspensions, on-track grade progression, and social and emotional skills.[2] Moreover, the impact of highly effective educators extends even to students they don't teach. As Opper reports, teachers impact

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[1] Sanders & Rivers (1996): Cumulative and Residual Effects on Future Student Academic Achievement, Knoxville, TN: Univ of Tennessee.
[2] Doan, S. (2019). Beyond Achievement: How Teachers Affect Outcomes Other than Test Scores. Santa Monica, CA: RAND Corporation.

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students through coaching, extracurricular activities, and by impacting their peer educators.[3] As teachers learn from each other, an effective teacher can impact the educational successes of students who are not even in their classes.

TeachUNITED Professional Learning Research Basis

Given that educators are the biggest lever for improving outcomes for students, the School Accelerator program focuses on the instructional strategies that will most impact student outcomes. The following is a selected list of the research drawn on for the School Accelerator Program. A full bibliography is available [here for teachers](#) and [here for administrators.](#)

1. Equity: Instructional Strategies, Classroom Culture, Creating an Environment of Success for All
     a. Carol Dweck - *Growth / Fixed Mindset*
     b. John Hattie - *Visible Learning & Meta-Analysis of Teacher Effect*
     c. Jim Knight - *High Impact Coaching Cycle*
     d. Phillip Schlechty - *Student Engagement Strategies*

2. Personalized & Blended Learning Research
     a. Organizations - *ISTE, iNACOL, Evergreen Consulting*
     b. Katherine Kennedy & John Watson, *Digital Learning Collaborative*
     c. Jal Mehta & Todd Rose, *Harvard* and Justin Reich, *MIT*
     d. Allison Zmuda, *ASCD Understanding by Design Cadre*
     e. John Pane and Bob Murphy, *RAND*
     f. Barbara Means, *Digital Promise*
     g. Tom Vanderark*, Getting Smart*

Coaching for PD Delivery and Design

There exists a broad general consensus among researchers as to what makes professional development effective. Effective PD requires ongoing learning opportunities and active learning, live modeling, open-ended discussions, and practice opportunities.[4] Effective professional development should include meaningful opportunities for collaboration and collective participation, which in turn lead to greater coherence in development and more active learning among the staff.[5] When you look at the criteria for effective PD, coaching must be a cornerstone of any successful program.

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[3]Opper, I.M. (2019) *Teachers Matter: Understanding Teachers' Impact on Student Achievement*, Santa Monica, Calif.: RAND Corporation, RR-4312.
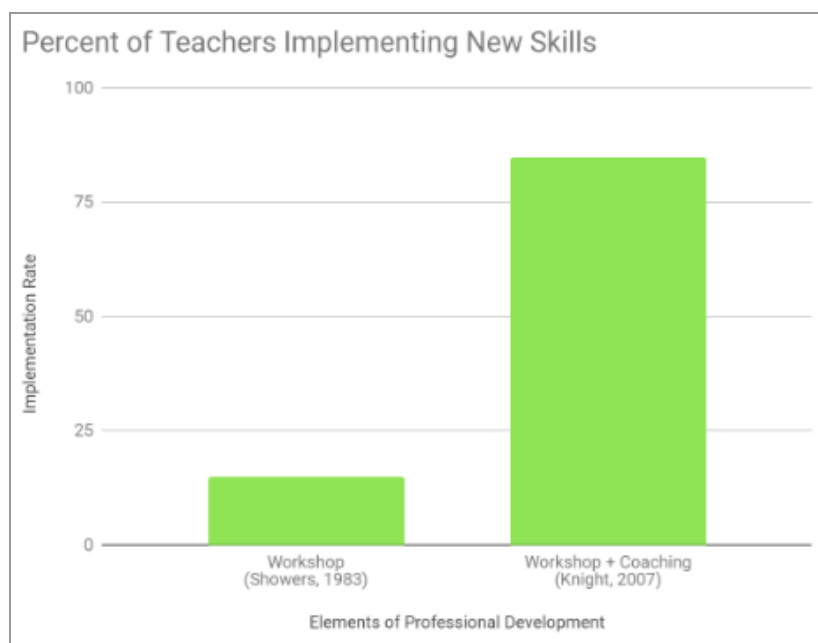[4] Hill, H. C., Beisiegel, M., & Jacob, R. (2013). Professional development research: Consensus, crossroads, and challenges. Educational researcher, 42(9), 476-487.
[5] Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. American educational research journal, 38(4), 915-945.

"Analysis of results from across 60 studies found that *coaching works*. With coaching, the quality of teachers' instruction improves by as much as—or more than—the difference in effectiveness between a novice and a teacher with 5-10 years of experience, *a more positive estimated effect than traditional PD and most other school-based interventions*."[6]

Researchers at the Stanford graduate school of education found that the following four key promising practices emerged:

1. Duration and distribution: PD should span longer periods of time to be effectively implemented.

2. Coaching and collaboration: ongoing, iterative coaching and collaboration between teachers and coaches with observations, feedback, and data analysis.

3. Simulation of practice: active learning where teachers have opportunities to practice and apply learning.

4. Technology: well-designed interactive digital learning experiences can be as effective as in person methods and provide personalization for pace, content, and readiness.[7]

Percent of Teachers Implementing New Skills

(Bar chart showing Implementation Rate on the y-axis from 0 to 100, and Elements of Professional Development on the x-axis. "Workshop (Showers, 1983)" bar at approximately 15, "Workshop + Coaching (Knight, 2007)" bar at approximately 85.)

Comparing the Impact of Online and Face-to-Face Professional Development

COVID-19 shifted educational systems rapidly to virtual and blended learning and professional development. However, online and blended PD predate the pandemic and research has consistently shown it can be as effective as in-person PD. The Journal of Teacher Educator in 2013 compared online and in-person PD and found that teachers and students exhibited significant gains in both conditions, and that there was no significant difference between conditions. Online PD offers flexibility, the possibility of remote schools having access to more diverse offerings, and can be a cost-effective solution for schools.[8]

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[6] Blazar, David; Kraft, Matthew A., Education Next - Fall 2018 Vol 18 No.4, 2018
[7] Ball, A.F. (2015), Effective professional development for 21st century learning [research paper]. Stanford, CA: Stanford University of Education.
[8] Bates, M. S., Phalen, L., & Moran, C. (2016). Online professional development: A primer. Phi Delta Kappan, 97(5), 70-73.