



RESEARCH REVIEW

Elizabeth Foster

The impact of coaching on teacher practice and student achievement

► THE STUDY

Kraft, M., Blazar, D., & Hogan, D. (2018, August). The effect of teacher coaching on instruction and achievement: A meta-analysis of the causal evidence. *Review of Educational Research*, 88(4), 547-588.

LET US HEAR FROM YOU

Do you have thoughts about this study or have recommendations of other research you'd like to see us cover? Email me at elizabeth.foster@learningforward.org.

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Educators who have experienced coaching — either as the coach or the coached — often speak to its positive impact on their development and growth and frequently to positive impacts on student learning.

Coaching is a key job-embedded professional learning strategy that is grounded in day-to-day teaching practice, addresses immediate problems of practice, and targets instructional practices with the intent of improving student learning (Croft, Coggshall, Dolan, Powers, & Killion, 2010).

Coaching is a core element of Learning Forward's comprehensive professional learning work with districts and schools. We therefore have a special interest in research findings about its impact.

A recent meta-analysis of the empirical literature about teacher coaching strategies and programs offers a clear, thoughtful analysis that details the impact of coaching on teacher practice and student achievement. The study, conducted by Matthew Kraft, David Blazar, and Dylan Hogan, is an important read for anyone in the field, but it has particular implications for policymakers and school leaders who make decisions about whether and how to invest in coaching.

For naysayers and critics of professional learning, it provides convincing evidence that coaching does matter and is a worthwhile investment. This study is one that Learning Forward will be calling upon as evidence of the

impact of effective professional learning investments in our advocacy efforts at the local, state, and federal levels.

Coaching is not a new strategy, as evident from Kraft and colleagues' review of the literature, from Joyce and Showers' foundational conceptual work in the 1980s to recent studies that employ a causal research design to examine the impact of coaching. But, as the authors highlight, in the last decade, researchers, funders, and policymakers have made important progress in increasing the rigor of studies about coaching (and other educational interventions) and gaining clarity about causal links.

In 2007, a review of “the entire canon” of teacher professional learning research found that only nine studies out of more than 1,300 were “capable of supporting causal inferences” (p. 549). Fast-forward to 2018: This study by Kraft et al. is based on 60 rigorous studies of coaching as a subcategory of professional learning and speaks to meaningful impacts on instruction and achievement.

RESEARCH QUESTIONS

The study addressed three research questions:

- What is the causal effect of teacher coaching programs on classroom instruction and student achievement?
- Are specific coaching program design elements associated with larger effects?



- Do changes in teacher practice from coaching programs translate into improvements in student achievement?

The researchers began with a theory of action consistent with Learning Forward's Standards for Professional Learning (Learning Forward, 2011). Their theory states that coaching impacts teacher knowledge and behavior, which in turn impacts students' academic and social and emotional outcomes. The conceptual framework aligns well with Learning Forward's **Outcomes standard** in its

appreciation of teaching and learning as the interaction of teachers, students, and content in context.

Kraft and colleagues defined coaching programs broadly as any approach in which "coaches or peers observe teaching instruction and provide feedback to help [teachers] improve." They made a distinction between coaching — which is intended to be "individualized, time-intensive, sustained over the course of a semester or year, context-specific, and focused on discrete skills" — and other professional development strategies that might be

WHAT IS COACHING?

Kraft et al. characterize coaching as the process "where instructional experts work with teachers to discuss classroom practice in a way that is (a) individualized — coaching sessions are one-on-one; (b) intensive — coaches and teachers interact at least every couple of weeks; (c) sustained — teachers receive coaching over an extended period of time; (d) context-specific — teachers are coached on their practices within the context of their own classroom; and (e) focused — coaches work with teachers to engage in deliberate practice of specific skills."

more "short-term and generalized." (They acknowledge that coaching is often one element of a larger professional learning strategy, but they aimed to examine the specific impact of coaching.)

STUDY METHODOLOGY

Kraft and colleagues reviewed studies using meta-analytic methods. The benefit of this approach is that the results of multiple studies are aggregated to provide a broad understanding of the impact of coaching and highlight patterns of similarities and differences across different approaches.

All of the studies included used research designs that allowed the researchers to examine the causal effect of coaching and therefore have a high

level of confidence that positive findings are attributable to the coaching rather than other differences between the groups of teachers being compared. (The vast majority were randomized controlled trials, but a few were not randomized and instead compared the change over time in one group with the change over time in the other.)

To identify the studies for inclusion, the authors conducted a systematic review of the literature, identifying articles using electronic databases, reviewing the references of all the studies, and contacting experts in the field to fill in any additional studies. They included studies on both content-specific (e.g. literacy) and generalized coaching programs conducted in the U.S. and developed countries, across the pre-K through 12th-grade range.

The researchers eliminated studies that did not use observation

measures of classroom instruction or a measure of student achievement from a standardized assessment and those that could not ensure participants were selected randomly. A total of 60 studies met the inclusion criteria. Most of the studies focused on pre-K and elementary school literacy, although other coaching program designs (including 13 virtual programs) were included as well.

BIG-PICTURE FINDINGS: COACHING WORKS

The meta-analysis found large positive effects of coaching on teachers' instructional practices. This is a simple yet important finding. Across 43 studies that included an outcome measure of instructional practice, the researchers found a pooled effect size of .49 standard deviations (SD). By way of comparison, this effect is greater than

the difference researchers have found in instructional quality between novice and veteran teachers.

In addition, teacher coaching had an independent, positive effect on student achievement, as indicated by performance on standardized tests. These effects are similar to or larger than estimates of "the degree to which teachers improve their ability to raise student achievement during the first five to 10 years of their careers" (p. 569).

Strikingly, the effects of coaching were also larger than previous studies of other school-based improvement strategies, including teacher preservice training, merit-based pay, and extended learning time for students. Because most of the studies examined only reading tests, the researchers were limited in their ability to examine the impact of coaching on performance in separate subject areas, but the patterns

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they examined suggested the effect holds up across subjects.

It is a foundational assumption in all coaching and other professional learning designs that the above findings are linked — that is, that coaching improves instruction, which in turn improves student achievement. Limitations in existing studies made it difficult to answer this question with confidence, but exploratory analyses found support for this assumption.

However, it is important to note that the researchers found that there needs to be a substantial change in teaching practice to have a positive impact on student achievement. It appears that coaching that leads to small improvements in instructional practice may not translate into achievement increases for students.

FINE-GRAIN FINDINGS

The authors also delve into some subanalyses of the rich findings. First, they explore features of effective coaching programs, although they note that their methods did not allow them to assess the causal effects of specific program features. The authors found:

- Pairing coaching with group training is associated with a larger effect on instruction and on achievement (.31 SD and .12 SD respectively), suggesting that building content knowledge along with or before coaching is beneficial. Ninety percent of the studies combined coaching with other strategies, which is encouraging, given that Learning Forward's **Learning Designs standard** emphasizes the importance of complementary and contextualized professional learning strategies. This is why the Standards for Professional Learning are interconnected — no one element is the solution.

- In the coaching programs studied, the number of hours of coaching varied widely — from 10 hours or fewer to 60 hours and more — making it difficult to draw conclusions about how much time resulted in certain effects. Within this wide range, there was no clear evidence that more hours of coaching were associated with larger impacts, suggesting that “the quality and focus of the coaching may be more important than the actual number of contact hours” (p. 565).

The positive effects were greater from small coaching programs with fewer teachers than from larger programs. This finding surfaces a challenge common to strategies in professional learning and education in general: How much can you scale an effective practice before you compromise the elements that make it effective?

Scale is an ongoing challenge for the field. Learning Forward is working to address it in many places by building in protected time for coaching and ensuring there are enough expert coaches to provide this kind of effective professional learning across a district or state. But the needs and challenges are ongoing, and issues of scale are important to consider as we think about advocating for funding and support for professional learning.

FROM RESEARCH TO POLICY AND PRACTICE

Highlighting the impact of effective professional learning strategies like coaching is a high priority for Learning Forward. Studies like this one help us make the case for continued and increased investments in educators. We encourage advocates and practitioners to share the findings with policymakers, who do not have time to read the

research themselves.

Some additional considerations about the research, which can help all of us frame our messages, can be found in Education Next's recent coverage of the Kraft, Blazar, and Hogan study at www.educationnext.org/taking-teacher-coaching-to-scale-can-personalized-training-become-standard-practice.

This study also has implications for education professionals working at many levels. Educators can use the findings to support the coaching work they are already doing or enhance other professional learning approaches with coaching strategies. The study also points to a body of research to explore more deeply, from the positive multistudy findings about literacy coaching to single studies that can be leveraged, cited, or built on in future research.

Learning Forward will continue to explore questions raised by the study, for example about the best total hours, duration, and sequence of coaching and other professional learning strategies, and about identifying the sweet spot for coaching in our systems as we think about balancing time and investments.

How will you use this study? What ideas or questions does it raise for your work? Tweet us @LearningForward or email me at elizabeth.foster@learningforward.org.

REFERENCES

- Croft, A., Coggshall, J.G., Dolan, M., Powers, E., & Killion, J. (2010, April). *Job-embedded professional development: What it is, who is responsible, and how to get it done well* (Issue Brief). Washington, DC: National Comprehensive Center for Teacher Quality.
- Learning Forward. (2011). *Standards for Professional Learning*. Oxford, OH: Author. ■