
Thank you for your request to our REL Reference Desk regarding evidence-based information about the impact of professional development on student achievement. Ask A REL is a collaborative reference desk service provided by the ten regional educational laboratories (REL) that, by design, functions much in the same way as a technical reference library. It provides references, referrals, and brief responses in the form of citations on research based education questions.

The information below represents the most rigorous research available. Researchers consider the type of methodology and give priority to research reports that employ well described and thorough methods. The resources were also selected based on the date of the publication with a preference for research from the last ten years. Additional criteria for inclusion include the source and funder of the resource.

Question: *Does professional development have an impact on student achievement?*

Search Process

Key words and search strings used in the search: *professional development AND student achievement.*

Search databases and websites: ERIC (<http://www.eric.ed.gov/>), Google Scholar (<http://scholar.google.com/>), JSTOR (<http://www.jstor.org/action/showAdvancedSearch>)

Sample Citations Retrieved:

Darling-Hammond, L., Wei, R. C., Andree, A., Richardson, N., & Orphanos, S. (2009). *Professional learning in the learning profession: A status report on teacher development in the United States and abroad*. Oxford, OH: National Staff Development Council.
Retrieved from
http://www.becker.k12.mn.us/sites/beckerschools/files/departments/2012/NSDCstudytechnicalreport2009_0.pdf

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, 915–945. Retrieved from
http://www.imoberg.com/files/Unit_D_ch._24_--_Garet_et_al._article.pdf

Abstract: This study uses a national probability sample of 1,027 mathematics and science teachers to provide the first large-scale empirical comparison of effects of different characteristics of professional development on teachers' learning. Results, based on ordinary least squares regression, indicate three core features of professional development activities that have significant, positive effects on teachers' self-reported increases in knowledge and skills and changes in classroom practice: (a) focus on content knowledge; (b) opportunities for active

learning; and (c) coherence with other learning activities. It is primarily through these core features that the following structural features significantly affect teacher learning: (a) the form of the activity (e.g., workshop vs. study group); (b) collective participation of teachers from the same school, grade, or subject; and (c) the duration of the activity.

Goddard, Y. L., Goddard, R. D., & Tschannen-Moran, M. (2007). Theoretical and empirical investigation of teacher collaboration for school improvement and student achievement in public elementary schools. *Teachers College Record*, 109, 877–896.

Abstract: The purpose of this study was to review the literature and empirically test the relationship between a theoretically driven measure of teacher collaboration for school improvement and student achievement. The data for this study were drawn from students and teachers in a large urban school district located in the mid-western United States. The population for this study came from the elementary schools in one large mid-western school district. Survey data were drawn from a sample of 47 elementary schools with 452 teachers and 2,536 fourth-grade students. Results of HLM analyses indicate that fourth-grade students have higher achievement in mathematics and reading when they attend schools characterized by higher levels of teacher collaboration for school improvement. The authors suggest that the results provide preliminary support for efforts to improve student achievement by providing teachers with opportunities to collaborate on issues related to curriculum, instruction, and professional development. The authors also discuss the need for more research on the effects of different types of collaborative practices using more representative samples.

Yoon, K. S., Duncan, T., Lee, S. W.-Y., Scarloss, B., & Shapley, K. (2007). *Reviewing the evidence on how teacher professional development affects student achievement* (Issues & Answers Report, REL 2007–No. 033). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southwest. Retrieved from <http://ies.ed.gov/ncee/edlabs>

Abstract: Examining more than 1,300 studies identified as potentially addressing the effect of teacher professional development on student achievement in three key content areas, this report finds nine that meet What Works Clearinghouse evidence standards. That only nine meet standards attests to the paucity of rigorous studies that directly assess the effect of in-service teacher professional development on student achievement in mathematics, science, and reading and English/language arts.

Referrals

Organizations:

Learning Forward (<http://learningforward.org/>)

National Council on Teacher Quality (<http://www.nctq.org/p/>)

Institute of Education Sciences Resources (IES):

Publication search engine available at: <http://ies.ed.gov/pubsearch/>

Other Federally Funded Resources:

- Center on Instruction (<http://www.centeroninstruction.org>)
 - <http://centeroninstruction.org/bringing-literacy-strategies-into-content-instruction>
- National Institute of Child Health & Human Development (<http://www.nichd.nih.gov/Pages/index.aspx>)
 - <http://www.nichd.nih.gov/pages/search.aspx?q=professional%20development>
- What Works Clearinghouse (<http://ies.ed.gov/ncee/wwc/>)

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