

REL Southwest Ask A REL Response

November 2019

Educator Effectiveness

Question:

What is the educational benefit of teachers, staff, and/or administrators participating in professional learning communities?

Response:

Thank you for the question you submitted to our REL Reference Desk. We have prepared the following memo with research references to help answer your question. For each reference, we provide an abstract, excerpt, or summary written by the study's author or publisher. Following an established Regional Educational Laboratory (REL) Southwest research protocol, we conducted a search for research reports as well as descriptive study articles on the benefit regarding student achievement when teachers, staff, and/or administrators participate in professional learning communities (PLCs).

We have not evaluated the quality of references and the resources provided in this response. We offer them only for your reference. Also, we searched the references in the response from the most commonly used resources of research, but they are not comprehensive, and other relevant references and resources may exist. References provided are listed in alphabetical order, not necessarily in order of relevance. We do not include sources that are not freely available to the requestor.

Research References

Crippen, K. J., Biesinger, K. D., & Ebert, E. K. (2010). Using professional development to achieve classroom reform and science proficiency: An urban success story from southern Nevada, USA. *Professional Development in Education*, 36(4), 637–661.
<https://eric.ed.gov/?id=EJ904397>. Retrieved from
<https://www.researchgate.net/publication/240543763>

From the ERIC abstract: “This paper provides a detailed description and evaluation of a three-year professional development project in a large urban setting in the southwestern United States. The impetus for the project was curriculum development focused on integrated scientific inquiry. Project goals included the development of a professional learning community, reformed teacher practice, and improved content knowledge for teachers and their students. Annually, a two-week summer institute was provided for approximately 50 high school science teachers with graduate-level coursework during the

academic year. The results document improvements in teacher content knowledge and key changes in the classroom characteristics of teacher participants. Further, students enrolled in a target course with teachers who participated fully in the professional development were more than twice as likely to pass the state science examination. The results from this project add to what is known about delivering successful, contextually relevant professional development.”

Doğan, S., Pringle, R., & Mesa, J. (2016). The impacts of professional learning communities on science teachers’ knowledge, practice and student learning: A review. *Professional Development in Education*, 42(4), 569–588. <https://eric.ed.gov/?id=EJ1104427>. Retrieved from https://www.academia.edu/21802808/The_impacts_of_professional_learning_communities_on_science_teachers_knowledge_practice_and_student_learning_A_review

From the ERIC abstract: “The purpose of this article is to provide a review of empirical studies investigating the impact of professional learning communities (PLCs) on science teachers’ practices and knowledge. Across 14 articles that satisfied the definition we embraced, most were devoted to the change in science teaching practices, disciplinary content knowledge (DCK) and pedagogical content knowledge (PCK) of K-12 science teachers. Although a small number of studies have implicit focus on comparing measures of student learning, we set out to examine the studies in science education and present how teachers engaged in PLCs focusing on examining and exploring strategies to promote student learning. Analysis of the related studies resulted in the following: PLCs can help teachers increase their PCK and DCK; increases in PCK and DCK may facilitate the change in teacher practices from traditional into more inquiry-based approaches; science teachers collaboratively focusing on student learning in PLCs are more likely to change their practice; and studies do not embrace student learning as an essential feature of PLCs. Methodological flaws and future directions along with implications for science teachers’ professional development are discussed.”

Huggins, K. S., Scheurich, J. J., & Morgan, J. R. (2011). Professional learning communities as a leadership strategy to drive math success in an urban high school serving diverse, low-income students: A case study. *Journal of Education for Students Placed at Risk*, 16(2), 67–88. <https://eric.ed.gov/?id=EJ924690>. Retrieved from <https://researchgate.net/publication/233042269>

From the ERIC abstract: “Utilizing a qualitative case-study design, this study explored how a mid-sized urban high school professional learning community was used as a reform effort to increase student achievement in mathematics on standards-based assessments. From a year-long interaction with the math professional learning community, which consisted of 3 school leaders and 6 teachers, principal leadership emerged as most significant in the professional learning community process for increasing teacher and student learning. Through detailed observations of professional learning community meetings and teachers’ classrooms, this research was able to trace changes in teacher practices that resulted from the professional learning community meetings. Results indicate that school leaders may have to take responsibility for providing instructional processes and practices that are characterized by structure,

pressure, and support to ensure that teacher learning and change in teacher practice that leads to improved student learning occur within professional learning communities.”

Thompson, J., Richards, J., Shim, S.-Y., Lohwasser, K., Von Esch, K. S., Chew, C., et al. (2019). Launching networked PLCs: Footholds into creating and improving knowledge of ambitious and equitable teaching practices in an RPP. *AERA Open*, 5(3), 1–22. <https://eric.ed.gov/?id=EJ1229665>

From the ERIC abstract: “One of the major challenges in educational reform is supporting teachers and the profession in the continual improvement of instruction. Research-practice partnerships and particularly networked improvement communities are well-suited for such knowledge-building work. This article examines how a networked improvement community with eight school-based professional learning communities—comprised of secondary science teachers, science and emergent bilingual coaches, and researchers—launched into improvement work within schools and across the district. We used data from professional learning communities to analyze pathways into improvement work and reflective data to understand practitioners’ perspectives. We describe three improvement launch patterns: (1) Local Practice Development, (2) Spread and Local Adaptation, and (3) Integrating New Practices. We raise questions about what is lost and gained in the transfer of tools and practices across schools and theorize about how research-practice partnerships find footholds into joint improvement work.”

Vescio, V., Ross, D. & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and Teacher Education: An International Journal of Research and Studies*, 24(1), 80–91. <https://eric.ed.gov/?id=EJ782410>. Retrieved from https://www.dvusd.org/cms/lib/AZ01901092/Centricity/Domain/9762/CIA_PLC_Research_Article.pdf

From the ERIC abstract: “After an overview of the characteristics of professional learning communities (PLCs), this manuscript presents a review of 10 American studies and one English study on the impact of PLCs on teaching practices and student learning. Although, few studies move beyond self-reports of positive impact, a small number of empirical studies explore the impact on teaching practice and student learning. The collective results of these studies suggest that well-developed PLCs have positive impact on both teaching practice and student achievement. Implications of this research and suggestions for next steps in the efforts to document the impact of PLCs on teaching and learning are included.”

Additional Organization to Consult

All Things PLC – <https://www.allthingsplc.info/>

From the website: “This site is a collaborative, objective resource for educators and administrators who are committed to enhancing student achievement.

Professional learning community (PLC): An ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve. Professional learning communities operate under the assumption that the key to improved learning for students is continuous job-embedded learning for educators.”

REL Southwest note: All Things PLC offers publications and tools that support the understanding and implementation of PLCs.

REL Southwest – <https://ies.ed.gov/ncee/edlabs/regions/southwest/plc.asp>

From the website: “The *Professional Learning Communities Facilitator's Guide* is designed to assist teams of educators in applying the evidence-based strategies presented in the [Teaching Academic Content and Literacy to English Learners in Elementary and Middle School educator's practice guide](#), produced by the What Works Clearinghouse. Through this collaborative learning experience, educators will expand their knowledge base as they read, discuss, share, and apply key ideas and strategies to help K–8 English learners acquire the language and literacy skills needed to succeed academically.”

Methods

Keywords and Search Strings

The following keywords and search strings were used to search the reference databases and other sources:

- [(“professional learning communities” AND “effectiveness”) AND (“teachers” OR “principals” OR “staff”) AND “achievement”]
- [(“professional learning communities”) AND (“impact”) AND (“achievement”)]
- [(“professional learning communities”) AND (“student achievement” OR “effectiveness” OR “classroom impact”)]

Databases and Resources

We searched [ERIC](#) for relevant, peer-reviewed research references. ERIC is a free online library of more than 1.7 million citations of education research sponsored by the Institute of Education Sciences (IES). Additionally, we searched the [What Works Clearinghouse](#).

Reference Search and Selection Criteria

When we were searching and reviewing resources, we considered the following criteria:

- *Date of the publication:* References and resources published from 2004 to present, were included in the search and review.

- *Search priorities of reference sources:* Search priority is given to study reports, briefs, and other documents that are published and/or reviewed by IES and other federal or federally funded organizations, academic databases, including ERIC, EBSCO databases, JSTOR database, PsychInfo, PsychArticle, and Google Scholar.
- *Methodology:* The following methodological priorities/considerations were given in the review and selection of the references: (a) study types—randomized control trials, quasi-experiments, correlational studies, descriptive data analyses, literature reviews, mixed methods analyses, and so forth; (b) target population, samples (representativeness of the target population, sample size, volunteered or randomly selected, and so forth), study duration, and so forth; and (c) limitations, generalizability of the findings and conclusions, and so forth.

This memorandum is one in a series of quick-turnaround responses to specific questions posed by stakeholders in the Southwest Region (Arkansas, Louisiana, New Mexico, Oklahoma, and Texas), which is served by the Regional Educational Laboratory (REL) Southwest at AIR. This memorandum was prepared by REL Southwest under a contract with the U.S. Department of Education’s Institute of Education Sciences (IES), Contract ED-IES-91990018C0002, administered by AIR. Its content does not necessarily reflect the views or policies of IES or the U.S. Department of Education nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.