



REL Appalachia Ask A REL Response

Online Courses, Teacher Preparation

March 2018

Question:

What are characteristics of effective online professional development courses, particularly for ELA and social studies teachers?

Response:

Thank you for your request to our REL Reference Desk regarding evidence-based information about online professional development. Ask A REL is a collaborative reference desk service provided by the 10 Regional Educational Laboratories (RELs) that, by design, functions much in the same way as a technical reference library. Ask A REL provides references, referrals, and brief responses in the form of citations in response to questions about available education research.

Following an established REL Appalachia research protocol, we searched for peer-reviewed articles and other research reports on online professional development. We focused on identifying resources that specifically addressed the characteristics of effective online professional development for ELA and social studies teachers. The sources included ERIC and other federally funded databases and organizations, research institutions, academic research databases, and general Internet search engines. For more details, please see the methods section at the end of this document.

The research team did not evaluate the quality of the resources provided in this response; we offer them only for your reference. Also, the search included the most commonly used research databases and search engines to produce the references presented here, but the references are not necessarily comprehensive, and other relevant references and resources may exist.

References

Bates, M. S., Phalen, L., & Moran, C. (2016). Online professional development: A primer. *Phi Delta Kappan*, 97(5), 70–73. Abstract retrieved from <http://eric.ed.gov/?id=EJ1088814>

From the abstract: “Many teachers are turning to online professional development to meet their learning needs, but the vast array of available opportunities may be overwhelming. This article provides a framework for making sense of common online teacher learning opportunities. It also suggests situations where online professional development may be

most useful and presents a challenge for educators to consider when engaging in online learning.”

Cavanaugh, C. (2011). *Evidence-based practices for online teacher professional development* [video presentation]. 2011 Advances and Opportunities in Rural Education Research Speaker Series, National Center for Research on Rural Education. Retrieved from http://r2ed.unl.edu/presentations/2011/100311_Cavanaugh/

From the session objectives: “Online professional development (OLPD) addresses the problem of increased demands on decreasing teacher time. High-quality, job-embedded OLPD programs take multiple forms embodying:

- Community building and sustainability
- Ongoing, facilitated support
- Application of learning
- Reflection on outcomes

The session includes promising, research-based approaches for online professional development, with specific guidelines, recommendations, and examples.”

Collins, L. J., & Liang, X. (2015). Examining high quality online teacher professional development: Teachers’ voices. *International Journal of Teacher Leadership*, 6(1), 18–34. Retrieved from <http://eric.ed.gov/?id=EJ1137401>

From the abstract: “Funded by Race to the Top, a federal education initiative, the Department of Education of a Midwestern state in the U.S. launched statewide implementation of online teacher professional development (OTPD) to apply formative instructional practices (FIP) to enhance classroom instruction. Central to the design and implementation of OTPD was the need to carefully consider the quality of the professional development program. This study aimed to look into this by asking, “Which features of high quality online professional development were noted by participating educators in a statewide online teacher professional development program?” A survey was used to collect educators’ voices in this FIP professional development (PD) program. Eight hundred ninety-five educators participating in the FIP OTPD program responded to a survey. Descriptive analysis was conducted with frequencies and percentages of 21 Likert scale items. Inductive analysis and thematic coding were applied for open-ended comments from the survey. Results suggested many inconsistencies between: (a) the high quality online professional development that theories suggest, and (b) what was designed, delivered, and implemented. The study identified specific aspects of this FIP OTPD program that will inform future online professional development in order to improve quality in other large scale or statewide school improvement initiatives.”

de Kramer, R. M., Masters, J., O’Dwyer, L. M., Dash, S., & Russell, M. (2012). Relationship of online teacher professional development to seventh-grade teachers’ and students’ knowledge and practices in English language arts. *Teacher Educator*, 47(3), 236–259. Abstract retrieved from <http://eric.ed.gov/?id=EJ971140>

From the abstract: “Online professional development (OPD) has potential to improve teacher quality by improving teachers’ knowledge and instructional practices. These changes, in turn, have potential to improve student achievement. Unfortunately, there is a dearth of scientific research on the effects of OPD on teachers and, more importantly, on students. This article presents the results of a randomized controlled trial exploring the effects of a series of three learning-community model OPD workshops on teachers’ content knowledge, teachers’ instructional practices, students’ content knowledge, and students’ practices in the context of seventh-grade English language arts. There were statistically significant effects on teachers’ vocabulary and overall English language arts content knowledge and on vocabulary and writing practices. The effect sizes of these changes ranged from small to medium. There were statistically significant effects on students’ reading comprehension practices.”

Fishman, B., Konstantopoulos, S., Kubitskey, B. W., Vath, R., Park, G., Johnson, H., & Edelson, D. C. (2013). Comparing the impact of online and face-to-face professional development in the context of curriculum implementation. *Journal of Teacher Education*, 64(5), 426–438. Abstract retrieved from <http://eric.ed.gov/?id=EJ1019346>; full text available at <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1032.1619&rep=rep1&type=pdf>

From the abstract: “This study employed a randomized experiment to examine differences in teacher and student learning from professional development (PD) in two modalities: online and face-to-face. The study explores whether there are differences in teacher knowledge and beliefs, teacher classroom practice, and student learning outcomes related to PD modality. Comparison of classroom practice and student learning outcomes, normally difficult to establish in PD research, is facilitated by the use of a common set of curriculum materials as the content for PD and subsequent teaching. Findings indicate that teachers and students exhibited significant gains in both conditions, and that there was no significant difference between conditions. We discuss implications for the delivery of teacher professional learning.”

Holmes, A., Signer, B., & MacLeod, A. (2010). Professional development at a distance: A mixed-method study exploring inservice teachers’ views on presence online. *Journal of Digital Learning in Teacher Education*, 27(2), 76–85. Retrieved from <http://eric.ed.gov/?id=EJ907004>

From the abstract: “This paper uses a mixed-method approach to examine the efficacy of a 5-week distance learning model that offered 2-credit courses for K–12 inservice teachers as a form of professional development. This study examined the experiences of the inservice teachers across online professional development courses and analyzed participant surveys from this population to gain a better sense of satisfaction, learning, and quality of interactions related to the online professional development. The findings speak to the value of establishing a sense of “presence” online, the impact of online teacher professional development on the active classroom, and features that contribute to the enhancement of professional development online.”

Masters, J., de Kramer, R. M., O'Dwyer, L. M., Dash, S., & Russell, M. (2010). The effects of online professional development on fourth grade English Language Arts teachers' knowledge and instructional practices. *Journal of Educational Computing Research*, 43(3), 355–375. Abstract retrieved from <http://eric.ed.gov/?id=EJ903249>; full text available at https://www.researchgate.net/publication/275621925_The_Effects_of_Online_Professional_Development_on_Fourth_Grade_English_Language_Arts_Teachers%27_Knowledge_and_Instructional_Practices

From the abstract: “Online professional development (OPD) has great potential to improve teacher quality by improving teachers' knowledge and instructional practices, with the ultimate goal of improving student achievement. There is a dearth of scientific research, however, on the effects of OPD. This article presents the results of a randomized control trial exploring the effects of a series of three learning-community model OPD workshops on teachers' knowledge and instructional practices in the context of fourth grade English language arts. There were significant effects on changes in teachers' knowledge and instructional practices, as they related to the targeted goals in vocabulary, reading comprehension, and writing instruction.”

Reeves, T. D., & Pedulla, J. J. (2013). Bolstering the impact of online professional development for teachers. *Journal of Educational Research & Policy Studies*, 1, 50–66. Retrieved from <http://eric.ed.gov/?id=ED545314>

From the abstract: “Online professional development (OPD) for teachers is an increasingly popular and viable alternative to face-to-face professional development. While OPD can be effective, little is known about OPD's design and implementation features that maximize its impact. Using data from a large-scale OPD initiative, this correlational study (N = 1231) investigates antecedents of self-reported changes in teacher knowledge, classroom practice, and student achievement. Three regression analyses replicate the importance of several factors in effective professional development, or online learning more generally, and also identify additional predictors of OPD's impact(s). The paper also discusses an applied framework for conceptualizing and modeling the effects of OPD's features on its successive outcomes. Implications for the design, implementation and evaluation of OPD, directions for future research, and study limitations are discussed.”

Vavasseur, C. B., & MacGregor, S. K. (2008). Extending content-focused professional development through online communities of practice. *Journal of Research on Technology in Education*, 40(4), 517–536. Retrieved from <http://eric.ed.gov/?id=EJ826089>

From the abstract: “This mixed method case study provides insights about how the professional development of middle school teachers is facilitated through their participation in content-focused online communities of practice. A key finding from this research reveals that the online community provided teachers with enhanced opportunities to share ideas, to discuss issues, and to make new connections with colleagues as well as with their principal. In addition, teachers gained curriculum-based knowledge, developed enhanced self-efficacy with respect to implementing technology, and collaborated on the development of interdisciplinary curriculum units.”

Additional Ask A REL Responses to Consult

Ask A REL West at WestEd. (2016). *Summary of research on online professional development for math teachers*. Retrieved from

https://relwest.wested.org/system/documents/pdfs/465/original/REL_West_Memo_Online_PD_for_math_teachers_508.pdf?1461172349

Methods

Keywords and Search Strings

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

- (“online professional development” OR “blended professional development”) AND effective*
- (“online professional development” OR “blended professional development”) AND (English OR ELA OR “social studies”)

Databases and Resources

We searched ERIC, a free online library of more than 1.6 million citations of education research sponsored by the Institute of Education Sciences (IES), for relevant resources. Additionally, we searched the academic database ProQuest, Google Scholar, and the commercial search engine Google.

Reference Search and Selection Criteria

In reviewing resources, Reference Desk researchers consider—among other things—these four factors:

- Date of the publication: Searches cover the most current information (i.e., within the last ten years), except in the case of nationally known seminal resources.
- Search priorities of reference sources: Search priorities include IES, nationally funded, and certain other vetted sources known for strict attention to research protocols. Applicable resources must be publicly available online and in English.
- Methodology: The following methodological priorities/considerations guide the review and selection of the references: (a) study types—randomized controlled trials, quasi experiments, surveys, descriptive data analyses, literature reviews, policy briefs, etc., generally in this order; (b) target population, samples (representativeness of the target population, sample size, volunteered or randomly selected), study duration, etc.; (c) limitations, generalizability of the findings and conclusions, etc.
- Existing knowledge base: Vetted resources (e.g., peer-reviewed research journals) are the primary focus, but the research base is occasionally slim or nonexistent. In those cases, the best resources available may include, for example, reports, white papers,

guides, reviews in non-peer-reviewed journals, newspaper articles, interviews with content specialists, and organization websites.

Resources included in this document were last accessed on March 13, 2018. URLs, descriptions, and content included here were current at that time.

This memorandum is one in a series of quick-turnaround responses to specific questions posed by education stakeholders in the Appalachia region (Kentucky, Tennessee, Virginia, and West Virginia), which is served by the Regional Educational Laboratory Appalachia (REL AP) at SRI International. This Ask A REL response was developed by REL AP under Contract ED-IES-17-C-0004 from the U.S. Department of Education, Institute of Education Sciences, administered by SRI International. The 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.