



Community for Advancing Discovery Research in Education

CADRE Learning Series

Professional Development for Researchers Who Don't Study PD Resource List

This list of professional development publications, citations, and other resources was compiled by panelists/consultants for the [CADRE Learning Series](#): Lani Horn, Vanderbilt University (moderator); Ruth Heaton, Teachers Development Group; Lama Jaber, Florida State University; Kari Kokka, University of Pittsburgh; and Jessica Thompson, University of Washington.

Lani Horn

Learn more about Lani's DRK-12 work: <https://cadrek12.org/users/ilana-horn>

Resources

- Cobb, P., Confrey, J., DiSessa, A., Lehrer, R., & Schauble, L. (2003). Design experiments in educational research. *Educational Researcher*, 32(1), 9-13. <https://doi.org/10.3102/0013189X032001009>
- Darling-Hammond, L., Hylar, M. E., Gardner, M. (2017). *Effective teacher professional development*. Palo Alto, CA: Learning Policy Institute. <https://doi.org/10.54300/122.311>
- Gutiérrez, K. D., & Jurow, A. S. (2016). Social design experiments: Toward equity by design. *Journal of the Learning Sciences*, 25(4), 565-598. <https://doi.org/10.1080/10508406.2016.1204548>
- Kennedy, M. M. (2016). How does professional development improve teaching? *Review of Educational Research*, 86(4), 945-980. <https://doi.org/10.3102/0034654315626800>
- National Network of Research Practice Partnerships: <https://nnerpp.rice.edu/>
- Sandoval, W. (2014). Conjecture mapping: An approach to systematic educational design research. *Journal of the Learning Sciences*, 23(1), 18-36. <https://doi.org/10.1080/10508406.2013.778204>

Ruth Heaton

Learn more about Ruth's DRK-12 work: <https://cadrek12.org/users/ruth-heaton>

Resources

- Carlson, M. A., Heaton, R., & Williams, M. (2017). Translating professional development for teachers into professional development for instructional leaders. *Mathematics Teacher Educator*, 6(1), 27-39. <https://doi.org/10.5951/mathteaceduc.6.1.0027>
- Feiman-Nemser, S. (2012). *Teachers as learners*. Harvard Education Press. <https://www.hepg.org/hep-home/books/teachers-as-learners>
- Franke, M. L., Carptenter, T. P., Levi, L., & Fennema, E. (2001). Capturing teachers' generative change: A follow-up study of professional development in mathematics. *American Educational Research Journal*, 38(3), 653-689. <https://doi.org/10.3102/00028312038003653>



- Heaton, R. M. (2000). *Teaching mathematics to the new standards: Relearning the dance*. Teacher's College Press. <https://www.tcpres.com/teaching-mathematics-to-the-new-standards-9780807770443>
- Smith, W. M. & Heaton, R. M. (2013). Learning from practice about improving the quality of mathematics teacher research. *Mathematics Teacher Educator*, 1(2), 148-161. <https://doi.org/10.5951/mathteaceduc.1.2.0148>
- Sztajn, P. & Wilson, P. H. (2019). *Learning trajectories for teachers: Designing effective professional development for math instruction*. National Council of Teachers of Mathematics. <https://www.nctm.org/Store/Products/Learning-Trajectories-for-Teachers--Designing-Effective-Professional-Development-for-Math-Instruction/>

Lama Jaber

Learn more about Lama's DRK-12 work: <https://cadrek12.org/users/lama-jaber>

Resources

- Finkelstein, C. (2016). Thank you so much for the truth! *Phi Delta Kappan*, 97(7), 19-24. <https://doi.org/10.1177/0031721716641643>
- Finkelstein, C. (2019). *Doing our part: Trust and relational dynamics in literacy coaching*. *Literacy Research and Instruction*, 58(4), 317-337. <https://doi.org/10.1080/19388071.2019.1655684>
- Finkelstein, C., Jaber, L. Z., Dini, V. (2018). "Do I feel threatened? No... I'm learning!"—Affective and relational dynamics in science professional development. *Science Education*. <https://doi.org/10.1002/sc.21489>
- Jaber, L. Z., Dini, V., & Hammer, D. (2022). "Well that's how the kids feel!" - Epistemic empathy as a driver of responsive teaching. *Journal of Research in Science Teaching*, 59(2), 223-251. <https://doi.org/10.1002/tea.21726>
- Jaber, L. Z., Dini, V., Hammer, D., & Danahy, E. (2018). Targeting disciplinary practices in an online learning environment. *Science Education*, 102(4), 228-292. <https://doi.org/10.1002/sc.21340>
- Sztajn, P., Hackenberg, A. J., White, D. Y., Allexsaht-Snider, M. (2007). Mathematics professional development for elementary teachers: Building trust within a school-based mathematics education community. *Teaching and Teacher Education*, 23(6), 970-984. <https://doi.org/10.1016/j.tate.2006.04.023>
- Watkins, J., Jaber, L. Z., & Dini, V. (2020). Facilitating scientific engagement online: Responsive teaching in a science professional development program. *Journal of Science Teacher Education*, 31(5), 515-536. <https://doi.org/10.1080/1046560X.2020.1727622>

Kari Kokka

Learn more about Kari's DRK-12 work: <https://cadrek12.org/users/kari-kokka>

Website: www.karikokka.com

Resources & Citations

- Bang, M. & Vossoughi, S. (2016). Participatory design research and educational justice: Studying learning and relations within social change making. *Cognition and Instruction*, 34(3), 173-193. <https://doi.org/10.1080/07370008.2016.1181879>
- Comparative case study of two teachers' classrooms who use social justice mathematics. (Kokka, 2019, 2020, 2022)

- Goessling, K.P., Wright, D., Wager, A. C., & Dewhurst, M. (2020). Collaborative arts, creative research, and youth engagement in social justice practices [Special issue]. *International Journal of Qualitative Studies in Education*, 33(1).
<https://www.tandfonline.com/toc/tqse20/33/1?nav=toCList>
- Interview studies. (Kokka, 2016, 2018, under review)
- Jilk, L. M. (2016). Supporting teacher noticing of students' mathematical strengths. *Mathematics Teacher Educator*, 4(2), 188-199. <https://doi.org/10.5951/mathteaceduc.4.2.0188>
- Kokka, K. & Chao, T. (2020). 'How I show up for Brown and Black students': Asian American male mathematics teachers seeking solidarity. *Race Ethnicity and Education*, 23(3), 432-453.
<https://doi.org/10.1080/13613324.2019.1664002>
- Milner IV, H. R. (2007). Race, culture, and researcher positionality: Working through dangers seen, unseen, and unforeseen. *Educational Researcher*, 36(7), 388-400.
<https://doi.org/10.3102/0013189X07309471>
- Spencer Foundation Project with Rochelle Gutiérrez and Marrielle Myers: *Political Conocimiento in Teaching Mathematics: Preparing Teachers to Advocate for Students*. (Gutiérrez, Myers, & Kokka, 2021; Myers, Kokka, & Gutiérrez, under review; Gutiérrez, Kokka, & Myers, under review). <https://www.education.pitt.edu/grants-office-update-august-2020>

Jessica Thompson

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Website: <https://www.education.uw.edu/nic/>

Resources & Citations

- Ambitious Science Teaching & Rigor & Responsiveness. Engaging students' prior knowledge as an equity move to help learners feel connected & respected for their experiences. (Kang, Windschitl, Stroupe, & Thompson, 2016; Stroupe, 2014; Thompson et al., 2016; Windschitl, Thompson, & Braaten 2018)
- Critical Approaches to Science Teaching. Leveraging science practices to address historicized inequities and injustices. (Calabrese Barton & Tan 2020; Gutiérrez, 2002; Paris & Alim, 2014; Winn, 2018)
- Culturally Responsive Teaching. Building on students' funds of knowledge with a focus on culturally & linguistically diverse students' knowledge. (Hammond, 2014; Suárez, 2020; Villegas & Lucas, 2007)
- Shim, S-Y & Thompson, J. (2022). Four years of collaboration in a professional learning community: Shifting toward supporting students' epistemic practices. *Science Education*, 1–32.
<https://doi.org/10.1002/sc.21704>
- Thompson, J., Hagenah, S., McDonald, S., & Barchenger, C. (2019). Toward a practice-based theory for how professional learning communities engage in the improvement of tools and practices for scientific modeling. *Science Education*. 103(6), 1423-1455.
<https://doi.org/10.1002/sc.21547>
- Thompson, J., Richards J., Shim, S-Y., Lohwasser, K., Chew, C., Sjoberg, B., & Morris, A. (2019). Launching Networked PLCs: Footholds into creating and improving knowledge of ambitious and equitable teaching practices in a RPP. *AERA Open*. <https://doi.org/10.1177/2332858419875718>