

Education

Ph.D. 2006	Northwestern University School of Education and Social Policy, Learning Sciences <i>Dissertation:</i> School leadership practice: Putting school subjects into the leadership equation.
Master of Arts 2000	Northwestern University School of Education and Social Policy, Learning Sciences
Master in the Art of Teaching 1994	Lewis & Clark College Elementary Education, Math, Science, Technology K-9 Teacher Certification
Bachelor of Arts 1991	Wesleyan University American Studies

Professional Experience

2/17 – present	Co-Director , Partners for Network Improvement, University of Pittsburgh
2/11 – present	Research Associate , Learning Research Development Center, University of Pittsburgh
2/11 – 6/17	Instructional Design Fellow , Institute for Learning (IFL), University of Pittsburgh
1/06 – 8/10	Post Doctoral Research Associate , University of Pittsburgh, Learning Research and Development Center (LRDC)
6/03 – 12/05	Research Assistant , University of Chicago & Northwestern University, Information Infrastructure System Project
8/94 – 6/99	Teacher , The Catlin Gabel School and Lake Oswego Public Schools

Other Professional Activities

	Educational Consultant
1/06 – 8/07	Information Infrastructure System Project
6/09 – 8/10	The Carnegie Foundation for the Advancement of Teaching
12/15 – 4/16	The School of Education, University of Pittsburgh
2/16 – 6/18	Trefny Innovative Instruction Center, Colorado School of Mines

Publications

Refereed Journal Articles

- 2025 Russell, J. L., Bryk, A. S., Peurach, D. J., Sherer, J. Z., Duff, M., Sherer, D., & Matthis, C. (2025). Catalyzing Scientific-Professional Learning Communities: A Framework for Conceptualizing the Health and Development of Educational Improvement Networks. *Peabody Journal of Education*, 100(1), 7–27. <https://doi.org/10.1080/0161956X.2025.2444839>
- Sherer, D., Bryk, A. S., Yee-Lam Li, A., Sherer, J. Z., Russell, J. L., & Bui, M. A. (2025). The Design of an Information System to Support Network Development. *Peabody Journal of Education*, 100(1), 48–63. <https://doi.org/10.1080/0161956X.2025.2444842>
- Russell, J. L., Bryk, A. S., & Sherer, J. Z. (2025). Bringing Scientific-Professional Learning Communities into Practice: Exploring Variation in Educational Improvement Network Health and Development. *Peabody Journal of Education*, 100(1), 64–81. <https://doi.org/10.1080/0161956X.2025.2444843>
- Duff, M., Sherer, J. Z., Premo, A., & Perlman, H. (2025). Hub Leaders’ Perspectives on Equity in Networked Improvement. *Peabody Journal of Education*, 100(1), 100–116. <https://doi.org/10.1080/0161956X.2025.2444845>
- Peurach, D. J., Jones, E. S., Duff, M., Sherer, J. Z., & Matthis, C. (2025). The Practice and Contexts of Hub and District Leadership: New Directions in Research on Educational Improvement Networks. *Peabody Journal of Education*, 100(1), 117–132. <https://doi.org/10.1080/0161956X.2025.2444846>
- 2024 Iriti J, Delale O’Connor L, Sherer JZ, Stol T, Davis D, Matthis C, Lowry D and Legg AS (2024) Adapting improvement science tools and routines to build racial equity in out of school time STEM spaces. *Frontiers in Education*, 10.3389/feduc.2024.1434813.
- 2011 Sherer, J. Z. & Spillane, J.P. Constancy and change in school work practice: Exploring the role of organizational routines. *Teachers College Record*, 113(3), 611-657.
- 2010 Spillane, J. P., Parise, L. M., & Sherer, J. Z. Organizational routines as coupling mechanisms: Policy, school administration, and the technical core. *American Educational Research Journal*, 48(3), 586-619.
- 2006 Gomez, K., Sherer, J., Borg, T., Dowling, J., Evans, D. Literacy infusion in a high school environmental science curriculum. *Spectrum*, 31(3), Winter, 2006.
- 2002 Spillane J. Diamond, J. Burch, P., Hallett, T., Jita, L., & Zoltners, J. Managing in the middle: School leaders and the enactment of accountability policy. *Educational Policy*, 16(5).

Refereed Journal Articles (under review)

Galey-Horn, S., Iriti, J., Sherer, J. Z., Lowry, D., Matthis, C., Legg, A. S. Building networks for knowledge exchange: An empirical analysis of tie formation in a networked improvement community. *AERA Open*.

Book Chapters

- 2010 Gomez, K., Sherer, J., Herman, P., Gomez, L., Zywica, J., & Williams, A. (2010). Supporting meaningful science learning: Reading and writing science. In A. Rodriguez (Ed.), *Science education as a pathway to teaching language literacy*. Rotterdam, Netherlands: SENSE Publishing.
- 2008 Sherer, J., Gomez, K., Herman, P., Gomez, L., White, J., & Williams, A. Literacy infusion in a high school environmental science curriculum. In Bruna, K. & Gomez, K. (Eds.) *Talking Science, Writing Science: The Work of Language in Multicultural Classrooms*. Mahwah, NJ: Erlbaum.
- 2007 Resnick, L. B., Besterfield-Sacre, M., Mehalik, M. M., Sherer, J. Z., & Halverson, E. R. A framework for effective management of school system performance. In P. A. Moss (ed.) *National Society for the Study of Education (NSSE) Yearbook on Evidence and Decision Making*.

Sherer, J. Z. Distributed leadership practice in math and language arts: One school's enactment of an organizational routine. In J. Spillane & J. Diamond, (eds.) *Distributed Leadership in Practice*. New York: Teachers College Press.
- 2005 Spillane, J. Sherer, J., & Coldren, A. Distributed leadership: Leadership practice and the situation. In W. Hoy & C. Miskil (eds.) *Educational Leadership and Reform*, pp. 149 – 167. IAP Publishing.
- 2004 Spillane, J., Diamond, J., Sherer, J., & Coldren, A. Distributing leadership. In M. Coles & G. Southworth, *Developing Leadership: Creating the Schools of Tomorrow*, pp. 37-49. New York: Open University Press.
- 2004 Gomez, K., Gomez, L., Kwon, S., & Sherer, J. Supporting reading-to-learn in science: The application of summarization technology in multicultural urban high school classrooms. In R. Bloymeyer, T. Ganesh, & H. Waxman (eds.) *Research in Technology Use in Multicultural Settings*. Charlotte, NC: Information Age Publications.

Reports

- 2022 Iriti, J., Stol, T., Sherer, J. Z., Briggs, A., & Alison, S. L. Root cause analysis as a tool for forging shared vision and partnership: Lessons for strengthening the process. *NSF INCLUDES Rapid Community Report*, May 2022.

Sherer, J. Z., Iriti, J., Russell, J. L., McNelis, R., Monosmith, S., Matthis, C. & Long, C. Teacher participation in an improvement network: A working paper on developmental trajectories. *Prepared for The Nellie Mae Education Foundation*.
- 2021 Sherer, J. Z., Russell, J. L., Iriti, J., McNelis, R., Matthis, C. & Monosmith, S. Engaging students in high school algebra: The Better Math Teaching Network. *Summative developmental evaluation report, prepared for The Nellie Mae Education Foundation*.

Sherer, J. Z., Russell, J. L., Iriti, J., McNelis, R., & Matthis, C. Engaging high school students: The Student-Centered Assessment Network. *Prepared for The Nellie Mae Education Foundation*.

Reports (continued)

- 2021 Iriti, J., Sherer, J. Z., Russell, J. L., McNelis, R., Matthis, C. Beyond the networked improvement community: Designing PLCs to spread learning from The Better Math Teaching Network. *Prepared for The Nellie Mae Education Foundation.*
- Iriti, J., Sherer, J. Z., Russell, J. L., McNelis, R., Matthis, C. Scaling the impact of a networked improvement community: Five strategies from The Better Math Teaching Network. *Prepared for The Nellie Mae Education Foundation.*
- Peurach, D. J., Matthis, C., Sherer, J. Z., Russell, J. L. Network leaders' use of results from The Network Health Survey: Developing NSIs as learning systems. *Prepared for The Bill and Melinda Gates Foundation.*
- 2020 Russell, J. L., Sherer, J., Z. Continuously improving NSI: Key strategies to leverage the power of networks identified by fellow NSI leaders. *Prepared for The Bill and Melinda Gates Foundation.*
- 2019 Iriti, J., Sherer, J. Z., Russell, J. L., Matthis, C., & Long, C. The Better Math Teaching Network Year 3: Teacher perceptions of impact on practice and student engagement. *Prepared for The Nellie Mae Education Foundation.*
- Iriti, J., Sherer, J. Z., Russell, J. L., Paquin-Morel, R., McNelis, R., Matthis, C., & Long, C. The Better Math Teaching Network 2018-19: Spread, Growth, and Sustainability. *Prepared for The Nellie Mae Education Foundation.*
- Sherer, J. Z., Russell, J. L., Iriti, J., Matthis, C., Paquin-Morel, R., & Long, C. *The Student-Centered Assessment Network: Year 2 High-level developmental report.* Prepared for The Nellie Mae Education Foundation.
- 2019 Sherer, J. Z., Russell, J. L., Iriti, J., Matthis, C., Paquin-Morel, R., McNelis, R., & Long, C. Participation in SCAN: Building and maintaining momentum in an instructionally focused network. *Prepared for The Nellie Mae Education Foundation.*
- Sherer, J. Z., Paquin-Morel, R., Russell, J. L., Iriti, J., & Matthis, C. Building a learning network: Social network analysis in the Student-Centered Assessment Network in 2018-19. *Prepared for The Nellie Mae Education Foundation.*
- 2018 Sherer, J. Z., Iriti, J., Russell, J. L., Matthis, C., & Long, C. The Better Math Teaching Network Year Two: Developmental evaluation report. *Prepared for The Nellie Mae Education Foundation.*
- Russell, J., Sherer, J. Z., Iriti, J., Matthis, C., & Long, C. Student-Centered Assessment Network Year One: Developmental evaluation report. *Prepared for The Nellie Mae Education Foundation.*
- 2017 Russell, J., Sherer, J. Z., Iriti, J., & Long, C. (2017). The Better Math Teaching Network Year One: Developmental evaluation report. *Prepared for The Nellie Mae Education Foundation.*

- 2016 Iriti, J., Sherer, J. Z. & Long, C. School of Education “EdD in 3”: Faculty perspectives on program design and implementation. *Report for the Dean of The School of Education at The University of Pittsburgh*. Pittsburgh, PA.

Reports (continued)

- 2015 Iriti, J. & Sherer, J. Z. Enacted IFL research roles and strategies for expanding and systematizing. *Report for Learning Research Development Center Leadership Team at The University of Pittsburgh*. Pittsburgh, PA.
- 2010 Sherer, J. Z., Bryk, A. S., Gomez, L., & Grunow, A. 90-Day cycle: Exploration of intensive programs as a strategy to move more community college students out of developmental math courses. *Report for the Carnegie Foundation for the Advancement of Teaching*. Stanford, CA.

White Papers

- 2021 Russell, J. L., Bryk, A. S., Peurach, D. J., Sherer, D., LeMahieu, P., Khachatryan, E., Sherer, J. Z., Hannan, M. The social structure of networked improvement communities: Cultivating the emergence of a scientific professional learning community. *The Carnegie Foundation for the Advancement of Teaching*.
- 2020 Peurach, D. J., Russell, J. L., Sherer, J. Z., McMahon, K., Parkerson, E. The work and complications of hub leadership in educational improvement networks. *Prepared for The Bill and Melinda Gates Foundation*.
- 2014 O’Boyce, A., Sherer, J. Z., Bill. V., Spiegel, S., & Petrosky, A. *Talking to learn*.

Presentations

Conference Presentations (Refereed)

- 2025 Sherer, J. Z., Peurach, D. J., & McMahon, K. Supporting network leaders: Unpacking the work and challenges of hub leaders. *The Carnegie Foundation Summit on Improvement in Education*. San Diego, CA.
- Li, A., Sherer, J. Z., & Russell, J. L. Designing for high engagement: Balancing structure and agency in improvement networks. *The Carnegie Foundation Summit on Improvement in Education*. San Diego, CA.
- Peurach, D., J., Jones, E., Duff, M., Sherer, J. Z., & Matthis, C. The practice, challenges, and contexts of hub leadership in educational improvement networks. *International Congress for School Effectiveness and Improvement*. Melbourne, Australia.
- Duff, M., Russell, J. L., Sherer, J.Z. Initiating, developing, and sustaining networks for school improvement in districts. *American Educational Research Association Meeting*. Denver, CO.
- Galey-Horn, S., Iriti, J., Sherer, J. Z., Lowry, D., Matthis, C., Legg, A. S. (2025) Using Networked Improvement Communities to Address Policy Fragmentation in STEM Education. *American Educational Research Association Meeting*. Denver, CO.

Conference Presentations (Refereed—continued)

- 2025 Russell, J. L., Peurach, D., Bryk, A., Duff, M., Li, A., Sherer, J. Z., Premo, A., Perlman, H., Matthis, C., Improvement Network Development: Exploring the Promise of Collaboration Among Schools to Support Educational Improvement. *American Educational Research Association Meeting*. Denver, CO.
- 2024 Duff, M., Sherer, J. Z., Li, A. Equity in networked improvement: For whom and under what conditions? *The Carnegie Foundation Summit on Improvement in Education*. San Diego, CA.
- Duff, M., Russell, J. L., & Sherer, J. Z. Putting networks in context: How NSI manage complex environments *The Carnegie Foundation Summit on Improvement in Education*. San Diego, CA.
- Duff, M., Sherer, J. Z., Russell, J. L., Premo, A., E., Li, A. Y., & Perlman, H. Equity in networked improvement: For whom and under what conditions? *American Educational Research Association Meeting*. Philadelphia, PA.
- 2023 Russell, J. L., & Sherer, J. Z. Organizing for improvement. *American Educational Research Association Meeting*. Chicago, IL.
- Peurach, D. J., Russell, J. L., Sherer, J. Z., Jones, E., Duff, M., Matthis, C. S., McMahon, K. Developing, managing, and sustaining school improvement networks: Inside the black box of hub leadership. *American Educational Research Association Meeting*. Chicago, IL.
- Duff, M., Perlman, H., Russell, J. L., Sherer, J. Z., Matthis, C. S., Bryk, A. S. Putting networks in context: How school improvement networks manage complex environments. *American Educational Research Association Meeting*. Chicago, IL.
- Russell, J. L., Peurach, D. J., Bryk, A., Sherer, J. Z., Duff, M., & Premo, A. A descriptive examination of the manifestation of the improvement network concept in the NSI Initiative. *American Educational Research Association Meeting*. Chicago, IL.
- 2022 Peurach, D., Russell, J. L., Sherer, J. Z., McMahon, K., & Parkerson, E., The work and complications of hub leadership in educational improvement networks, in *Creating Systemic Change for Improvement and Transformation: Affordances and Limitations of Five Efforts to Improve Instruction at Scale*. *American Educational Research Association Meeting*. San Diego, CA.
- 2021 Russell, J. L., Sherer, J. Z., Petrosky, A., Newman, C., Smith, T., Walters, K., Ashoka, E. H. Improving the core: Features, challenges, and opportunities of instructionally-focused improvement networks. *The Carnegie Foundation Summit on Improvement in Education*. Virtual, April 2021.
- Iriti, J., Sherer, J. Z., Smith, T., Walters, K. Beyond the network: Models of spread for networked learning community learning. *The Carnegie Foundation Summit on Improvement in Education*. Virtual, April 2021.

Iriti, J., Sherer, J. Z. Knowledge management: Engineering learning in an emergent networked improvement community. The Carnegie Foundation Summit on Improvement in Education. Virtual, April 2021.

Conference Presentations (Refereed, continued)

- 2020 Russell, J. L., Sherer, J. Z., Ashoka, E. H., & Apodaca, R. Improving the core: Features and challenges of instructionally-focused networked improvement communities. The Carnegie Foundation Summit on Improvement in Education. Virtual, April 2020.
- 2019 Russell, J. L., Sherer, J. Z., Walters, K., Fillers, B., Welch, M. Improving the core: Features and challenges of instructionally-focused networked improvement communities. The Carnegie Foundation Summit on Improvement in Education. San Francisco, CA, April 18, 2019.
- Sherer, J. Z., Iriti, J., & Russell, J. L. Designing for learning: How tools and routines support the critical learning needs of network members. *American Educational Research Association Meeting*. Toronto, CA.
- 2018 Sherer, J. Z., Spiegel, S. A., & Sanders, M. Organizational routines that support and sustain changes in STEM teaching. *American Educational Research Association Meeting*. New York, New York.
- Sanders, M., Spiegel, S. A., Sherer, J. Z. Moving beyond “Does active learning work” with the Engineering Learning Observation protocol (ELCOT). *ASEE Annual Conference and Exposition*. Salt Lake City, UT.
- Spiegel, S. A., Sanders, M. & Sherer, J. Z. Transforming an institution by Engineering Learning. *ASEE Annual Conference and Exposition*. Salt Lake City, UT.
- 2017 Tolnay, T., Spiegel, S. A., & Sherer, J. Z. Development and use of the Engineering Learning Classroom Observation Tool (ELCOT). *ASEE Annual Conference and Exposition*. Columbus, OH.
- 2015 Through the Looking Glass: Using a Classroom Discourse Visualizer to Support Teacher Reflection on Practice. Clarke, S. N., Chen, G., Bickel, D. D., Sherer, J. Z. & Resnick, L. B. (2015). In Lindwall, O., Häkkinen, P., Koschman, T. Tchounikine, P. & Ludvigsen, S. (Eds.) *Exploring the Material Conditions of Learning: The Computer Supported Collaborative Learning (CSCL) Conference 2015* (Vol. 2, pp. 828-830). Gothenburg, Sweden: The International Society of the Learning Sciences.
- 2010 Sherer, J. Z. Organizational routines as a mechanism for building instructional coherence and social capital. *American Educational Research Association Meeting*. Denver, Colorado.
- Correnti, R. J., Sherer, J. Z., Besterfield-Sacre, M., Magruder, P., Kisa, Z., Resnick, L. B. A systems approach to educational reform: Differences in role group perceptions. *American Educational Research Association Meeting*. Denver, Colorado.
- 2008 Sherer, J. Z., Power in distributed leadership: How teacher agency influences instructional leadership practice. *American Educational Research Association Meeting*. New York, New York.

Sherer, J. Z., Clark, R. M., Haynes, A., & Norvelle, G. Building process measures of student engagement: A district/university collaboration. *American Educational Research Association Meeting*. New York, New York.

Conference Presentations (Refereed, continued)

2007 Sherer, J. Z., Clark, R. M., Besterfield-Sacre, M., & Resnick, L. Mapping the school system: Learning from how district leaders build a model for improving student learning. *American Educational Research Association Meeting*. Chicago, Illinois.

Clark, R. M., Sherer, J. Z., Besterfield-Sacre, M., & Resnick, L. Combining expert directed graphs of the K-12 educational system. *American Educational Research Association Meeting*. Chicago, Illinois.

2005 Sherer, J. Z., Distributed leadership practice in math and literacy: One school's response to high stakes testing. *American Educational Research Association Annual Meeting*, Montreal, Canada.

2004 Sherer, J. Z., Distributed Leadership Practice: The subject matters. *American Educational Research Association Annual Meeting*, San Diego, California.

Spillane, J. P. & Sherer, J. Z., A distributed perspective on school leadership: Leadership practice as *stretched over* people and place. *American Educational Research Association Annual Meeting*, San Diego, California.

2001 Halverson, R. & Zoltners, J. Distribution of artifacts: How designed artifacts illustrate school leadership practice. *American Educational Research Association Annual Meeting*, Seattle, Washington.

2000 Spillane, J. Diamond, J., Burch, P., Hallett, T., Jita, L., & Zoltners, J. Managing in the middle: School leaders and the enactment of accountability policy. *Association for Public Policy Analysis and Management*, Seattle, Washington, November.

Invited Presentations

- Russell, J. L., Sherer, J. Z., Bryk, A., Li, A. Improvement network development: Lessons from the field. The Carnegie Foundation Summit on Improvement in Education. March 26, 2024.
- Russell, J. L., Sherer, & J. Z., Sherer, D., Lin, A. Improvement network development. The Carnegie Foundation Summit on Improvement in Education. April 24, 2023.
- Russell, J. L., Sherer, & J. Z. Theory of NIC development. The Carnegie Foundation Summit on Improvement in Education. March 28, 2022.
- Peurach, D., McMahon, K., Parkerson, E., Russell, J. L., Sherer, J. Z. Using a network leadership framework to strengthen hub leadership. The Bill and Melinda Gates Foundation Improvement Network Community of Practice, Virtual, February, 2021.
- Russell, J. L., Sherer, J. Z., Sherer, D. Theory of NIC development. The Carnegie Foundation Summit on Improvement in Education. Virtual, April, 2020.
- Russell, J. L., Sherer, J. Z., Sherer, D. Theory of NIC development. The Carnegie Foundation Summit on Improvement in Education. San Francisco, CA, April 17, 2019.
- Russell, J. L., Sherer, J. Z., & Iriti, J. Organizing districts as improvement networks. Institute for Learning National Conference, Pittsburgh, PA, June 2019.
- Russell, J. L., Sherer, J. Z., Sherer, D. Theory of NIC development. The Carnegie Foundation Summit on Improvement in Education. San Francisco, CA, April 2020.
- Russell, J. L., Sherer, J. Z., Sherer, D., & Mejia, E. Theory of NIC development. The Carnegie Foundation Summit on Improvement in Education. San Francisco, CA, April 4, 2018.
- Sherer, J. Z., Rosita Apodca, Rebecca Grainger, and Adam Billings, “Design Thinking Institute: How Might We Enable Students to Have Greater Agency” Institute for Learning Annual Retreat, Pittsburgh, PA, May 18, 2017.
- Sherer, J. Z., Rosita Apodaca and Adam Billings, “Design Thinking: A Lens for Smart Adaptation,” Institute for Learning Annual Retreat, Pittsburgh, PA, May 11, 2016.
- Sherer, J. Z., and Rosita Apodaca, “Guiding Coalitions: The Challenge & the Power of Collaborations Across Multiple Role Groups,” Institute for Learning Annual Retreat, Pittsburgh, PA, May 11, 2016.
- Sherer, J. Z., “Developing Shared Vision: Distributed Leadership,” Reforming STEM Instruction: An Examination of Four Core Change Strategies, Invited session at the joint conference for the American Association of Physics Teachers (AAPT) and the American Association for the Advancement of Science (AAAS), Chicago, IL, February 14, 2009.

Research-Practice Partnerships

Networked Improvement Communities

- Measuring network health, The Bill and Melinda Gates Foundation, 2018-present. (Principal Investigator) *Partners for Network Improvement is helping the Foundation measure network health and factors of school climate as part of its K-12 Networks for School Improvement initiative. We have been given a supplemental grant to continue the work as study sustainability.*
- Broadening participation in STEM, National Science Foundation Alliance Grant, 2019-present. *A multi-disciplinary team from the University of Pittsburgh is building a network of pre-college STEM programs working together in a networked way to increase the number of racially and ethnically marginalized students who enroll and persist in undergraduate STEM majors. Partners for Network Improvement serves as the hub of the networked improvement community within this broader network seeking to change college admissions and increase equity in STEM.*
- Building a framework for network leadership, The Carnegie Foundation for the Advancement of Teaching, January 2019-present. *Senior fellows at the Foundation are building a framework of network leadership to inform future network leader support and to build tools to measure network leadership.*

Developmental Evaluation

- Developmental Evaluation of the Better Math Teaching Network, Learning Research Development Center, University of Pittsburgh, 2016-2022. *The American Institutes for Research leads a networked improvement community (NIC) of high school math teachers in New England to increase student engagement in high school Algebra I through student-centered instruction. The developmental evaluation team supports the development of innovation and adaptation of the NIC through qualitative and quantitative data analysis and quick cycle reporting.*
- Developmental Evaluation of the Student-Centered Assessment Network, Learning Research Development Center, University of Pittsburgh, 2017-2022. *The American Institutes for Research leads a networked improvement community (NIC) of high school teachers in Rhode Island to increase high quality, student centered, formative assessment practices in the high school classrooms. The developmental evaluation team supports the development of innovation and adaptation of the NIC through qualitative and quantitative data analysis and quick cycle reporting.*
- Developmental evaluation of the Course Redesign Intensive Project, Colorado School of Mines, 2015-2018. *The Trefny Center at the Colorado School of Mines implements a summer pedagogy workshop and redesign support for a cohort of faculty. The developmental evaluation of the redesign project captures impact on design and implementation of redesigned courses, impact on student learning and engagement, change in professional learning communities, and evidence of spread across the university.*

Improvement Science

- Using Improvement Science to Improve School District Central Office Leadership Practice, Paterson Public Schools and The Institute for Learning, University of Pittsburgh, 2015-2018. *The leadership team at the Institute for Learning collaborates with central office leadership to improve leadership practice, establish routines, and build tools to support school district improvement. This project implemented improvement science to support continuous improvement in Paterson Public Schools.*

Research-Based Data System Design

- Process Engineering for Educational Results (PEER), Learning Research Development Center and Swanson School of Engineering, University of Pittsburgh, 2006-2010. *The PEER project applied concepts from systems engineering to bring research-based measurement tools to district systems to better identify, understand, and act upon challenges across the K-12 system (from district policy to classroom practice).*
 - Co-designed and co-implemented PEER project in four urban districts. Work included engaging district leaders in system mapping of district instructional system and qualitative and quantitative studies of various district initiatives.
- Learning Architecture, LRDC, University of Pittsburgh, 2014-2018. *The learning architecture project establishes an internal learning architecture in order to continuously improve the work of the Institute for Learning (IFL), have systematic data for reporting implementation quality and impact to existing and potential district partners, nurture academic scholarship among IFL fellows, and identify areas of interest for partnership with University researchers in order to investigate problems of policy or practice.*
 - Data System: Co-designed and implemented professional development feedback survey and process for data collection, analysis, and reporting. Analyzed qualitative data, wrote reports, and refined organizational routines for using data. Supported content teams to design, collect, analyze, and utilize various forms of data. Implemented improvement science methodology for organizational learning, individual learning, and in-district improvement.
 - Research Identity: Interviewed stakeholders, analyzed and organized data for internal report, co-wrote report.

College and Career Ready Standards

- Institute for Learning, Content Area Teams, University of Pittsburgh.
 - Supported math, science, English Language Arts, EL, and Leadership Teams in design of routines, tools, and learning experiences to support teachers and leaders as they bring college ready practices to underserved populations.
 - Collaborated with the math and ELA team leads to identify ways to measure the learning of their participants.
 - Collaborated with leadership team lead to bring improvement science methodology into central office work practice.
 - Co-authored reports, white papers and journal articles to disseminate IFL's work internally and to a broader audience.

Professional Development

- Institute for Learning Online Courses, University of Pittsburgh.
 - Co-designed and co-facilitated Coursera MOOC: Accountable Talk: Conversation that Works, Fall 2013
 - Facilitated Introduction to Accountable Talk, 2011-present.
- Institute for Learning Principals' Seminars, University of Pittsburgh.
 - Co-designed and co-facilitated:
 - Accountable Talk in Leadership Instructional Conversations, July 2009.
 - Leading Learning in Schools, July 2007.
- Information Infrastructure Systems Project Professional Development, University of Chicago.
 - Designed and facilitated: Supporting Literacy in High School Science, Clemente High School, Chicago Public Schools, 2004-2006.

Curricular Design

- Co-designed Coursera MOOC: Accountable Talk: Conversation that Works, Fall 2013.
- Co-designed high school earth science and biology curriculum, Chicago, 2003-2004.
- Designed integrated interdisciplinary curriculum (math, science, reading, writing, technology, art), Grades 4-6, Portland, Oregon, 1994-1999.

Professional Service

National:

- CLEE, Providence, RI
 - Board member, 2025
- Division K, Section 1 (Teaching and Teacher Education, Math and Science) Co-chair, American Educational Research Association, 2007.

Local:

- The Greene School, West Greenwich, RI.
 - Board Member, 2009-2017.
 - Vice President Board of Directors, 2013-2017.
 - Head of Academic Standards Committee, 2010-2017.
 - Chair Head of School Search Committee, 2015.
- The Gordon School, East Providence, RI
 - Board Member, 2017-present; Executive committee, 2021-2023.
 - Head of School evaluation committee, 2020-present.
 - Education/Diversity Committee Member, 2015-present; Co-Chair, 2017-present.
 - Library Volunteer Coordinator, 2015-2019.
- Melrose Elementary School, Jamestown, RI.
 - Chair, SALT Self-Study, November, 2008
- Jamestown School District, Jamestown, RI.
 - Strategic Planning Committee Member, September, 2003.
 - Middle School Improvement Team Member, December 2003-August 2008.

Professional Affiliations

- American Educational Research Association (AERA)
- Association for Supervision and Curriculum Development (ASCD)
- International Society of the Learning Sciences (ISLS)
- American Society of Engineering Education (ASEE)