Leema Kuhn Berland

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FORMAL EDUCATION

August, 2008	**Ph.D., Learning Sciences** Northwestern University, Evanston, IL Thesis: *Understanding the composite practice that forms when classrooms take up the practice of scientific argumentation*
June, 1999	**B.A. Computer Science, Minor in Educational Studies** Carleton College, Northfield, MN *B.A.* (Magna Cum Laude, and with departmental honors) Computer Science and Educational Studies

POSITIONS HELD

July 2023-Present	**Department Chair** University of Wisconsin-Madison, Department of Curriculum and Instruction
June 2022-Present	**Full Professor** University of Wisconsin-Madison, Department of Curriculum and Instruction
August 2016 – June 2022	**Associate Professor** University of Wisconsin-Madison, Department of Curriculum and Instruction
January 2013-August 2016	**Assistant Professor** University of Wisconsin-Madison, Department of Curriculum and Instruction
August 2008 – December 2012	**Assistant Professor** University of Texas at Austin, STEM Education
2003-2008	**Research Assistant** Northwestern University, Learning Sciences Program
2003-2005	**Teaching Assistant** Northwestern University, Learning Sciences Program

Honors and Awards

2015	Best Poster Award Nominee American Educational Research Association
2015	Article included in Routledge Education Journals 'Class of 2015' collection
2003-2008	Doctoral Fellow Center for Curriculum Materials in Science
2006	Fellowship to attend International Conference of the Learning Sciences Doctoral Consortium Indianapolis, IN
2005	Best Paper Award Recipient National Association for Research in Science Teaching

RESEARCH AND PUBLICATIONS

Journal Articles

1. Louie, N., **Berland, L.,** Pacheco, M., (under review). Opening and closing opportunities to learn through conflict in a school-based coalition for antiracism. *Urban Education.*.
2. Miller, E., **Berland, L.,** Campbell, T. D. (early view) Equity for students requires equity for teachers: The inextricable link between treating teachers as professionals and equity-centered science learning environments. *Journal of Science Teacher Education.* p. 1-20. DOI: 10.1080/1046560X.2023.2170793
3. Louie, N., **Berland, L.,** Pacheco, M., Roeker, L., Grant, C. (2022). Toward Radical Belonging: Envisioning Antiracist Learning Communities. *Race, Ethnicity, and Education.*
4. Potvin, A. S., Miller, E.A., Kuck, R., **Berland, L.,** Boardman, A.G., Kavanagh, S.S., Clark, T.L., Cheng, B.H. (2022). Mapping enabling conditions for high-quality PBL: A collaboratory approach, *Education Sciences*.
5. Miller, E. C., Reigh, E., **Berland, L.K** & Krajcik, J. (2021) Supporting Equity in Virtual Science Instruction Through Project-Based Learning: Opportunities and Challenges in the Era of COVID-19, *Journal of Science Teacher Education*, 32:6, 642-663
6. **Berland, L.K.,** Russ, R.S., West, C. (2020). Supporting the Scientific Practices Through Epistemologically Responsive Teaching. *Journal of Science Teacher Education,* 31(3), 264-290.
7. **Berland, L.K.,** Manz, E., Miller, E., & Stroupe, D. (2019). Making the system work for us: A response to Elby's commentary. *Journal of Research in Science Teaching,* 56(4), 521-525.
8. Russ, R.S., & **Berland, L.K.** (2019). Invented Science: A framework for discussing a persistent problem of practice. *Journal of the Learning Sciences*, 28(3), 279-301.
9. Miller, E., Manz, E., Russ, R., Stroupe, D., & **Berland, L.** (2018). Addressing the epistemic elephant in the room: Epistemic agency and the next generation science standards. *Journal of Research in Science Teaching*, *55*(7), 1053–1075. https://doi.org/10.1002/tea.21459
10. McNeill, K. L. & **Berland, L.** (2017). What is (or should be) scientific evidence use in K-12 classrooms? *Journal of Research in Science Teaching. 54*(5), 672-289.
11. **Berland, L. K**., & Steingut, R. (2016). Relationship between student perceived value of and engagement with math and science content for engineering design challenges. *International Journal of Science Education*, 38(18), p 2742-2761.
12. **Berland, L. K.,** Schwarz, C., Kenyon, L., Lo, A., Krist, C., & Reiser, B. (2016). Epistemologies in Practice: making scientific practices meaningful for students. *Journal of Research in Science Teaching*, 53(7), 1082-1112.
13. **Berland, L. K.,** & Crucet, K. C., (2015). Epistemological Tradeoffs: accounting for context when evaluating epistemological sophistication of student engagement in scientific practices. *Science Education*, 100(1), p 5-29.

14. Valtorta, C. & **Berland, L.K.** (2015) Math, Science, and Engineering Integration in a High School Engineering Course: A Qualitative Study. *Journal of Pre-College Engineering Education Research,* 5(1), 15-29.

15. **Berland, L.K.,** Steingut, R., & Ko, P. (2014). High school student perceptions of the utility of engineering design process: creating opportunities to engage in the engineering practices and apply math and science content. *Journal of Science Education and Technology,* 23(6), 705-720.

16. Hammer D. & **Berland L. K.** (2013) Confusing claims for data: A critique of common practices for presenting qualitative research on learning. *Journal of the Learning Sciences*, 23(1), 37-46.

17. **Berland, L.K.,** Martin, T., Ko, P. & Peacock, S. Rudolph, J., Golubski, C. (2013). Student learning in challenge-based engineering curricula. *Journal of Pre-Collegiate Engineering Education,* 3(1), 52-64.

18. **Berland, L.K.** (2013). Designing for STEM Integration. *Journal of Pre-Collegiate Engineering Education*, 3(1), 22-31.

19. Marshall, J., & **Berland, L.K.** (2012). Developing a Vision of Pre-college Engineering Education. *Journal of Pre-Collegiate Engineering Education,* 2(2), 36-50.

20. **Berland, L.K.**, McKenna, W., & Peacock, S. (2012). Understanding students' perceptions on the utility of engineering notebooks. *Advances in Engineering Education*, 3(2), 1-21.

21. **Berland, L.K.**, & McNeill, K.L. (2012). For whom is argument and explanation a necessary distinction? A response to Osborne and Patterson. *Science Education*, 96(5), 808-813.

22. **Berland, L.K.**, & Lee, V. (2012) In pursuit of consensus: disagreement and legitimization during small group argumentation. *International Journal of Science Education,* 34(12), 1857-1882.

23. Reiser, B.J., **Berland, L.K.**, Kenyon, L.O., (2012). Engaging students in the scientific practices of explanation and argumentation. *Science Teacher,* 79(4), 34-39; *Science Scope*, April/May, 6-11; *Science and Children*, 49(8), 8-13.

24. **Berland, L.K.**, & Hammer, D. (2012). Framing for scientific argumentation. *Journal of Research in Science Teaching*, 49(1), 68-94.

25. **Berland, L.K.** (2011). Explaining variation in how classroom communities adapt the practice of scientific argumentation. *Journal of the Learning Sciences*, 20(4), 625-664.

26. **Berland, L.K.**, & Reiser, B. J. (2011). Classroom communities' adaptations of the practice of scientific argumentation. *Science Education,* 95(2), 191-216.

27. **Berland, L.K.**, & McNeill, K.L. (2010). A learning progression for scientific argumentation: understanding student work and designing supportive instructional contexts. *Science Education, 94*(1), 765-793.

28. **Berland, L.K.**, & Reiser, B.J. (2009). Making sense of argumentation and explanation. *Science Education, 93*(1), 26-55.

Book Chapters

29. Kapon, S. & **Berland, L.** (2023). Epistemic models of reasoning, In M. F. Tasar & P. Heron (Eds) *International Handbook of Physics Education Research.* American Association of Physics Teachers.

30. **Berland, L.K.,** & Russ, R.S. (2018). Conceptual change through argumentation: A process of dynamic refinement. In T. Amin & O. Levrini (Eds.), *Converging Perspectives on Conceptual Change: Mapping an emerging paradigm in the Learning Sciences* (pp. 180-189). New York: Routledge.

31. McNeill, K. L., **Berland, L. K.** & Pelletier, P. (2016). Constructing explanations. In B. Reiser, C. Schwarz, C. Passmore (Eds.). *Supporting next generation scientific and engineering practices in K-12 classrooms.* (205-228). Arlington, VA: National Science Teachers Association Press.

32. **Berland, L. K.,** McNeill, K. L. Pelletier, P., & Krajcik, J. (2016). Arguing from evidence. In B. Reiser, C. Schwarz, C. Passmore (Eds.). *Supporting next generation scientific and engineering practices in k-12 classrooms* (pp. 229-258). Arlington, VA: National Science Teachers Association Press

33. Purzer, S., Moore, T., Baker, D., & **Berland, L.** (2014). *Supporting the implementation of the Next Generation Science Standards (NGSS) through research: Engineering.* Retrieved from https://narst.org/ngsspapers/engineering.cfm

34. **Berland, L. K.,** & Hammer, D. (2012). Students' framings and their participation in scientific argumentation. In M. Khine (Ed.), *Perspectives on Scientific Argumentation: Theory, Practice and Research.* (pp. 73-93). New York: Springer.

Minor Publications (Peer Reviewed Conference Proceedings and Monographs)

35. Louie, N., **Berland, L.**, Coviello, A., Pacheco, M. (2023, June). Navigating Emerging Divisions in a Coalition for an Antiracist School. *Proceedings of the 17th Annual International Conference of the Learning Sciences* 2023. Montreal, Canada.

36. Louie, N. and **Berland, L**. (2022, June). Managing Deference, Leadership, Vision, and Voice: Dilemmas from Antiracist School-University Partnerships. *Proceedings of the 16th Annual International Conference of the Learning Sciences* 2022. Hiroshima, Japan (online).

37. **Berland, L.,** Louie, N., Pacheco, M., and Roeker, L. (2022, June). Racism with Antiracists: Examining Sensemaking in a School-University Partnership for Antiracism. *Proceedings of the 16th Annual International Conference of the Learning Sciences* 2022. Hiroshima, Japan (online).

38. Miller, E., & **Berland, L.K.** (2020). In what contexts do teachers experience changing their science teaching as satisfying? *Interdisciplinarity in the Learning Sciences: Proceedings of the 14th International Conference of the Learning Sciences (ICLS 2020).* Nashville, TN: International Society of the Learning Sciences (online due to global pandemic).

39. **Berland, L.K.,** Russ, R. & Weeth Fenstein, N. (2018) Curiosity Practice: A powerful new lever for fostering scientific engagement. In J. Kay and R. Luckin (Eds.), *Rethinking learning in the digital age: making the Learning Sciences count. Proceedings of the 13th International Conference of the Learning Sciences (ICLS 2018)*. London, UK: International Society of the Learning Sciences.

40. **Berland, L.K.**, McNeill, K. L., (2018). How can personal experiences be leveraged as "scientific evidence" in k-12 classrooms?. In J. Kay and R. Luckin (Eds.), *Rethinking learning in the digital age: making the Learning Sciences count. Proceedings of the 13th International Conference of the Learning Sciences (ICLS 2018)*. London, UK: International Society of the Learning Sciences.

41. **Berland, L.K.**, Allen, D., Crawford, R., Farmer, C., & Guerra, L. (2012, June) *Learning Sciences guided high school engineering curriculum development* Paper presented at the annual meeting of the American Society for Engineering Education, San Antonio, TX. (2 citations)

42. **Berland, L.K.**, & McKenna, W. (2012, June) *Student responses to challenge-based curricula.* Paper presented at the annual meeting of the American Society for Engineering Education, San Antonio, TX.

43. Guerra, L., Allen, D., **Berland, L.,** Crawford, R. & Farmer, C. (2012). A unique approach to characterizing the engineering design process. Presented at the American Society for Engineering Education, San Antonio, TX.

44. **Berland, L.K.**, & Busch, K.C. (2012, June) *Negotiating STEM epistemic commitments for engineering design challenges.* Paper presented at the annual meeting of the American Society for Engineering Education, San Antonio, TX. (3 citations)

45. **Berland, L.K.,** McKenna, W., & Peacock, S. (2011, June). *Understanding students' perceptions on the utility of engineering notebooks*. Paper Presented at the Annual Meeting of the American Society for Engineering Education. Vancouver, B.C.

46. **Berland, L.K.**, & Forte, A. (2010). When Students Speak, Who Listens? Constructing Audience in Classroom Argumentation. In K. Gomez, L. Lyons & J. Radinsky (Eds.), *Learning in the Disciplines: Proceedings of the 9th International Conference of the Learning Sciences (ICLS 2010)* (Vol. 2, pp. 314-315). Chicago, IL: International Society of the Learning Sciences. (7 citations)

47. **Berland, L.K.**, & Lee, V.R. (2010). Anomalous graph data and claim revision during argumentation In K. Gomez, L. Lyons & J. Radinsky (Eds.), *Learning in the Disciplines: Proceedings of the 9th International Conference of the Learning Sciences (ICLS 2010)* (Vol. 2, pp. 314-315). Chicago, IL: International Society of the Learning Sciences. (4 citations)

48. **Kuhn, L.,** Kenyon, L.O., & Reiser, B. J. (July, 2006). Fostering scientific argumentation by creating a need for students to attend to each other's claims and evidence. In S. Barab, K. Hay & D. Hickey (Eds.), *Proceedings of the seventh international conference of the learning sciences* (pp 370-375). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

49. Kenyon, L.O., **Kuhn, L.,** & Reiser, B. J. (July, 2006). Using students' epistemologies of science to guide the practice of argumentation. In S. Barab, K. Hay & D. Hickey (Eds.), -

Proceedings of the seventh international conference of the learning sciences (pp 321-327). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Curriculum Materials

50. Berland. L., Bricker, L., Deller-Antieau, A., González-Howard, M., Rhodes, B., Wright, C. (2019). *Arguing from Evidence and Obtaining, Evaluating, and Communicating Information*. Curriculum Design Specifications. OpenSciEd.org

51. UTeach*Engineering*. (2014). *Engineer Your World* [High School Engineering Curriculum]. Austin, Texas: The University of Texas at Austin.

52. Finn, L-E., **Kuhn, L.**, Whitcomb, J. L., Bruozas, M., & Reiser, B.J. (2006). Where have all the creatures gone? In Krajcik & B. J. Reiser (Eds.), *IQWST: Investigating and questioning our world through science and technology*. Evanston, IL: Northwestern University.

53. Bruozas, M., Finn, L.-E., Tzou, C., Hug, B., **Kuhn, L.**, & Reiser, B. J. (2004). Struggle in natural environments: What will survive? In J. Krajcik & B. J. Reiser (Eds.), *IQWST: Investigating and questioning our world through science and technology*. Evanston, IL: Northwestern University.

RESEARCH SUPPORT

Funded Projects

1. **Co-Principal Investigator:** *Radical Belonging in Racist Systems: A School-University Partnership to Enact an Antiracist Learning Community.*
   Madison Education Partnership
   AY 2020-2021, $10,000.

2. **Co-Principal Investigator:** *Enabling Conditions for Depth in PBL Practices*
   Lucas Education Research Foundation;
   2019-2020, $80,000

3. **Co-Principal Investigator:** *Curiosity Practice: A powerful new lever for science engagement across Wisconsin*
   University of Wisconsin-Madison, School of Education, Grand Challenges
   2017-2018, $24,990

4. **Principal Investigator:** *Fostering Pedagogical Argumentation: Pedagogical Reasoning with Student Ideas*
   National Science Foundation, DRK12 Program
   2013-2016, $447,706

5. **Co-Principal Investigator:** *Supporting Scientific Practices in Elementary and Middle School Classrooms*
   National Science Foundation, DRK-12 Program
   2010-2014, $3,499,562
   2010-2014 Berland Subcontract: $264,000

6. **Sub-contractor:** UTeach*Engineering*
   National Science Foundation, DUE Program
   2008-2013, $9,230,188
   2010-2012 Berland Subcontract: $289,138

7. **Principal Investigator:** *Comparing Argumentation Regarding Socio-Scientific and Scientific Questions*
   University of Texas at Austin, Summer Research Assignment
   June – July 2012, $12,888

Not funded Projects

8. **Co-Principal Investigator:** *Racial Equity: Building Teacher Understanding of Latinx Students in Rural Settings Through Collaborative Science Game Design.*
   NSF, Racial Equity in STEM Ed Program
   2022-2025, $2,400,000

9. **Co-Principal Investigator:** *Locating and Leveraging Community-based Equity Assets for Science Learning in Disparate Social Contexts.*
   NSF, DRK-12 Program
   2022-2025, $1,000,000

10. **Principal Investigator**: *Radical belonging for students and families of color: A participatory design research project*
    Spencer Foundation, Large grants program
    2021-2024, $500,000.

11. **Principal Investigator:** *Going for broke: Building an anti-racist school community together*
    Baldwin Wisconsin Idea Endowment
    2019-2020, $120,187

12. **Co-Principal Investigator:** *Radical Belonging in Racist Systems: A study of learning and change for antiracist schools.*
    Office of the Vice Chancellor for Research and Graduate Education, UW-Madison, Understanding and Reducing Inequalities Initiative
    2021-2023, $250,000

13. **Co-Principal Investigator:** *Going for broke: School-university partnerships that enact antiracist change in schools*
    Spencer Foundation, Small grants program
    2021-2022, $346,036

14. **Co-Principal Investigator:** *Developing an antiracist school community to support radical belonging: A social design experiment*
    W.T. Grant Foundation
    2020-2022, $563,388

15. **Principal Investigator:** *Designing Curricula for Meaningful Scientific Sensemaking*
    National Science Foundation; DRK12 Program
    2019-2021, $245, 982

16. **Principal Investigator:** *Curiosity Practice: A Powerful New Lever for Fostering Science Engagement*
National Science Foundation, AISL Program
2018-2020, $1,204,286

17. **Co-Principal Investigator:** *What Is (or Should Be) Evidence in Science Classrooms: Exploring Curricular Levers to Support Student Sensemaking*
National Science Foundation, Core Program
Submitted September 2015, $1,500,000 (UW portion: $513,409)

LIST OF PRESENTATIONS

Research Conference Presentations

1. Bradford, A, Dozier, S., Miller, E. A., Richards, L., Jaber, L., **Berland, L.,** (2023) Expanding responsive science teaching to account for equity-oriented considerations Paper presented at the *American Educational Research Association Annual Conference*, April 2023.
2. **Berland, L.,** McKinney de Royston, M., de Roock, R., Roscoe, R., Boyanton, D., Marope, M., & Lee, V. (2022, June). Investing in emerging scholars to improve the learning sciences. Presented at the *International Conference of the Learning Sciences* 2022.

3. Bradford, A, Dozier, S., Jaber, L., Adah, E., **Berland, L.,** Richards, J. Engaging Cultural and Socio-Political Perspectives in Responsive Science Teaching. Paper presented at the American Educational Research Association Annual Conference, April 2022.

4. Miller, E.A., **Berland, L.K.** (2021). *Enacting PBL Science Instruction in the Context of Physical Distancing: Supporting Humanizing Relationships.* Paper presented at the American Educational Research Association Annual Conference, Virtual (COVID), April 2021.

5. Miller, E.A., **Berland, L.K.** (2019). *Supporting teacher practices in promoting discourse with a teleological approach to professional development.* Poster presented at the American Educational Research Association Annual Conference, Toronto, Canada, April 2019.

6. Miller, E.A., **Berland, L.K.** (2019). *Multimodal STEM Learning with Emerging Bilingual Students.* Poster presented at the National Association for Research in Science Teaching Annual Conference, Baltimore, MD, April 2019.

7. **Berland, L.K.**, Russ, R.S., West, C. (2018). *Pre-service teachers reframing pedagogy to support scientific sensemaking practices.* Paper presented at the National Association of Research in Science Teaching, Atlanta, GA. March 2018.

8. Russ, R.S., & **Berland, L.K.** (2018). *Inquiry Science vs Invented Science*. Paper presented at the National Association of Research in Science Teaching, Atlanta, GA. March 2018.

9. McNeill, K. L., **Berland, L.K.** (2018). Design Heuristics to enable students' productive use of evidence in k-12 classrooms. Paper presented at the National Association of Research in Science Teaching, Atlanta, GA. March 2018.

10. Miller, E.A., **Berland, L.K.** (2018). *Co-constructing Discursive Identities to Participate in the Scientific Practices..* Paper presented at the National Association for Research in Science Teaching Annual Conference, Atlanta, GA, March 2018.

11. **Berland, L.K.,** (August, 2017). *How context influences pre-service teachers attending and responding to student ideas.* Paper Presented at 17th Biennial EARLI Conference for Research on Learning and Instruction, Tampere, Finland.

12. Russ, R.S., & **Berland, L.K.** (2017). *How can students have epistemic agency when they have not identified what to learn?* Paper presented at the American Educational Research Association Annual Conference, San Antonio, TX April 2017.

13. **Berland, L.K.**, & Russ, R.S. (April, 2017). *Using responsive teaching to turn teacher attention to student epistemic agency.* Poster presented at the American Educational Research Association Annual Conference, San Antonio, TX.

14. **Berland, L.K.,** & Russ, R.S. (August, 2016) *Learning Through Argumentation: A Process of Dynamic Refinement.* Paper presented at EARLI Conference for Research on Learning and Instruction, Ghent, Belgium.

15. **Berland L.K**., Krist, C. (2016, April) *A novel framework for characterizing scientific epistemic sophistication.* Paper presented at the Annual Meeting of the American Educational Research Association. Washington, DC.

16. **Berland, L.K.,** Braaten, M., & Russ, R. (2015, April). *Supporting responsive teaching practices through pedagogical argumentation.* Paper presented at the National Association for Research in Science Teaching. Chicago, IL.

17. Braaten, M., **Berland, L.K.,** Russ, R. (2015, April). *Developing, Refining, and Sustaining the Next Generation of Responsive Science Teaching*. Symposium presented at National Association for Research in Science Teaching. Chicago, IL.

18. **Berland L.K**., Crucet, K. (2015, April) *Epistemological Tradeoffs: One Student's Efforts to Fulfill Epistemological Criteria Within Classroom Constraints.* Paper presented at the Annual Meeting of the American Educational Research Association. Chicago, IL.

19. Russ, R., Braaten, M., and **Berland, L.K.** (2015, April) *Seeing people as sense-makers: Exploring teacher attention to their students' science ideas.* Paper presented at the Annual Meeting of the American Educational Research Association. Chicago, IL.

20. Steingut, R., **Berland, L.K**. (2015, April). *Supporting STEM integration: Relating high school students' perception of the value, their competence, and their efforts towards using math and science knowledge in engineering contexts.* Poster presented at the Annual Meeting of the American Educational Research Association. Chicago, IL.

21. McNeill, K., and **Berland, L.K.** (2015, April). *Design Heuristics to Enable Students Productive Use of Evidence in k-12 Classrooms.* Paper presented at the NARST 2015 Annual International Conference, Chicago, IL.

22. Crucet, K., and **Berland, L.K.** (2015, April). *Fostering Pre-service Teacher Attention and Response to Student Ideas.* Poster presented at the NARST 2015 Annual International Conference, Chicago, IL.

23. Russ, R., Braaten, M., and **Berland, L.K.** (2015, April). *Supporting Responsive Teaching Practices Through Pedagogical Argumentation.* Paper presented at the NARST 2015 Annual International Conference, Chicago, IL.

24. **Berland, L.K.,** Milo, H., and Miller, E. (2015, April). *Why ask why if you don't care?: Relating students' mechanistic moves to their purpose for engaging in the scientific investigation.* Paper presented at the NARST 2015 Annual International Conference, Chicago, IL.

25. Russ, R.S., & **Berland, L.K.** (2013, July). *Pedagogical argumentation: Putting the response back into responsive teaching.* Poster presented at the Science Teaching Responsiveness Conference, Seattle, WA July 2013.

26. **Berland, L.K.,** & Berland, M.W. (2013, May). *Disentangling perceptions of authenticity in disciplinary practices.* Paper presented at the Annual Meeting of the American Educational Research Association. San Francisco, CA.

27. **Berland, L.K.,** Reiser, B. J., Kenyon, L. O., & Schwarz, C. (2013, May). *The role of epistemic commitments in supporting elementary and middle school students' scientific practices.* Paper presented at the Annual Meeting of the American Educational Research Association. San Francisco, CA.

28. **Berland, L.K.,** Steingut, R., & Ko, P. (2013, May). *High school student perceptions of the utility of engineering design process: creating opportunities to engage in the engineering practices and apply math and science content.* Paper presented at the Annual Meeting of the American Educational Research Association. San Francisco, CA.

29. **Berland, L.K.,** & McNeill, K. L. (2012, March) *For whom is argument and explanation a necessary distinction?* Paper presented at the NARST 2012 Annual International Conference, Indianapolis, IN.

30. Rogers, S., Busch, K.C., & **Berland, L.K.** (2012, March) *Variation in how individuals argue about scientific and socioscientific questions.* Paper presented at the NARST 2012 Annual International Conference, Indianapolis, IN.

31. Crucet, K., & **Berland, L.K.** (2012, March) *Middle school students constructing and explaining with models.* Paper presented at the NARST 2012 Annual International Conference, Indianapolis, IN.

32. **Berland, L.K.,** & Lee, V. R. (2011, April). *Analyzing argumentative discourse to identify factors underlying consensus-building processes*. Paper presented at the Annual Meeting of the American Educational Research Association. New Orleans, LA.

33. McKenna, W., & **Berland, L.K.** (2010, August). *Student communication in engineering design and the role of an object under construction.* Paper presented at the Inspire P-12 Engineering Summit, Seaside, OR.

34. **Berland, L.K.**, & McKenna, W. (2010, August). *Using scientific argumentation to enhance student work on engineering challenges.* Paper presented at the Inspire P-12 Engineering Summit, Seaside, OR.

35. Birchfield, J., & **Berland, L.K.** (2010, May). *Comparing the Complexity of Written and Verbal Arguments in a High School Biology Class*. Poster presented at the Annual Meeting of the American Educational Research Association, Denver, CO.

36. **Berland, L.K.**, & McNeill, K. L. (2009, June). *Learning progression to inform scientific argumentation in talk and writing*. Paper presented at the Learning Progressions in Science (LeaPS) conference, Iowa City, IA.

37. **Berland, L.K.**, & Hammer, D. (2009, April). *Tension between epistemology of scientific argumentation and institutional expectations for student and teacher roles*. Paper presented at the Annual Meeting of the American Educational Research Association, San Diego, CA.

38. **Berland, L.K.**, & Reiser, J. (2009, April). *Classroom communities' adaptations of the practices of scientific argumentation*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Garden Grove, CA.

39. **Kuhn L.** (2008, April). *Students' use of evidence in argumentative discourse.* Poster presented at the annual meeting of the National Association for Research in Science Teaching, Baltimore, MD.

40. **Kuhn L.**, & Reiser, B.J. (2007, April). *Bridging classroom practices: Traditional and argumentative discourse.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

41. McNeill, K.L., & **Kuhn, L.** (2006, April). *Sequencing and supporting complex scientific inquiry practices in instructional materials for middle school students: Explanation and argumentation.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco, CA.

42. **Kuhn, L.**, & Reiser, B. J. (2006, April). *Structuring Activities to Foster Argumentative Discourse.* Paper presented at the American Educational Research Association, San Francisco, CA.

43. **Kuhn, L.**, & Reiser, B. J. (2005, April). *Students Constructing and Defending Evidence-Based Scientific Explanations.* Paper presented at the National Association of Research in Science Teaching, Dallas, TX.

Invited Presentations

44. **Berland, L.K.,** (2022, February). Students participating in meangful scientific practices in more equitable ways. Presented at University of CA, San Diego.

45. **Berland, L.K.,** Appleby, L. (2020, April). The experience of an undergraduate science class designed to elicit student reasoning and rich knowledge building. Presented at Institute for Research on Learning and Instruction, Tufts University.

46. **Berland, L.K.,** (2019, November). What is the relationship between fostering meaningful participation and equitable teaching practices? Presented at CEEO, Tufts University.

47. **Berland, L.K.,** (2019, November). Students participating in meaningful scientific practices: What and why. Presented at University of Massachusetts, Amherst.

48. **Berland, L.K.,** (2018, November). Understanding and facilitating student participation in sensemaking. Presented at Stanford Graduate School of Education.

49. **Berland, L.K.** (2018, August). *Using curiosity to drive scientific practices*. Presented at Summer Science Institute. Waunakee, WI.

50. **Berland, L.K.** & Loper, S. (2016, February) *Supporting teacher learning in new ways.* STEM Smart: Lessons Learned from Successful Schools. San Francisco, CA.

51. **Berland, L. K.** (2014, November). *Fostering Students' Meaningful Engagement in Scientific Practices.* Michigan State University, East Lansing, MI.

52. **Berland, L. K.** (2014, December). *Fostering Students' Sensible Engagement in Scientific Practices.* Indiana University, Bloomington, IN

53. **Berland, L.K.**, & Crucet, K. (2011, June). *Persuasion, sensemaking, and consensus in scientific argumentation.* Symposium Participant at the Jean Piaget Society Meeting, Berkeley, CA.

54. **Berland, L.K.** (2009, May). *A detailed discourse analysis of norms and epistemological resources influencing how one class engaged in scientific argumentation*. University of Maryland, College Park, MD.

55. Reiser, B.J., **Kuhn, L.,** McNeill, K., Schwarz, C., Schwartz, Y. (2007, July). *What does it mean to support scientific practices in K-12 classrooms?* Plenary Session at the CCMS Knowledge Sharing Institute, Washington, D.C.

56. **Kuhn, L.,** McNeill, K. L., Krajcik, J. & Reiser, B. J. (2006, February). *Learning progressions for scaffolding student participation in scientific explanation and argumentation*. Presented at the NSF K-12 Math, Science, and Technology Curriculum Developers Conference, Washington, D.C.

57. Reiser, B. J., Kenyon, L.O., & **Kuhn, L.** (2005, July). *Nature of Science in Action – what should it look like when students use the nature of science understandings in classroom practice?* Session at the CCMS Knowledge Sharing Institute, Lansing, MI.

58. **Kuhn, L.,** & Reiser, B.J. (2004, July). *Evidence-based scientific explanations: Student and designer understandings.* Poster presented at the CCMS Knowledge Sharing Institute, Evanston, IL.

59. McNeill, K. L., Kenyon, L., **Kuhn, L.** (2004, July). *Student Explanations.* Session at the CCMS Knowledge Sharing Institute, Evanston, IL.

TEACHING

Chronology of Teaching

UW, C&I 702	**Sociocultural Theories of Learning** (graduate)
UW, C&I 719	**Introduction to Qualitative Research Methods** (graduate)
UW, C&I 372	**Teaching Science**
UW, C&I 975	**Designing Curriculum** (graduate)
UW, C&I 960	**Science Education Seminar** (graduate)
UT, C&I 370	**Elementary Science Methods**
UT, C&I 385	**Knowing and Learning in Math and Science** (graduate)
UT, C&I 385	**Argumentation and Learning** (graduate)
UT, C&I 388	**Discourse Analysis** (graduate)
UT, C&I 185	**Science and Math Education Forum** (graduate)

Graduate Advising

Doctoral Advisees (Degree Granted): Braisel S. H. (UT, 2010)

Doctoral Advisees (Current): Chan W-Y; Miller, E.; West, C.

Masters Advisees (Degree Granted): Crucet, K. (UW, 2014); Busch K.C. (UT, 2012); Crucet, K. (UT, 2011)

Graduate Research Assistants: Chan; Crucet; Duran; Joseph; Ko; Miller; Milo; Straek; Steingut; Valtorta; West

Dissertation Committee Membership (Degree Granted): Sibert-Evenston, (UW, 2020); Strikewerda, A. (UW, 2018); Dalsen J. (UW, 2018); Lemke, C. (UW, 2018); Belliston, A. (UW, 2017); Salkowski, L. (UW, 2017); Oden, T. (UW, 2017); McKenna, W. (UT, 2014); Owen, E. (UW, 2014); Gaertner, K. (UT, 2013); Oliveira, C. (UT, 2012); Petrick, C. (UT, 2012); Eberle, R. (UT, 2011)

Masters Thesis Committee Membership (Degree Granted): Saplan, K. (UW, 2018); Chatkyriakidou, K. (UW, 2017); Milo, H. (UW, 2015); Fallin, P. (UT, 2013); Valtorta, C. (UT, 2013); Evans, M. (UT, 2011)

PROFESSIONAL SERVICE

Professional Service

2017-present	**Associate Editor**, Journal of the Learning Sciences
2020-present	**Co-Chair,** AERA, LS/ATL SIG, *Outstanding Student Paper Award Committee*
2011-2019	**Member,** AERA, LS/ATL SIG, *Outstanding Student Paper Award Committee*
2016-2017	**Program Chair,** AERA Learning Sciences SIG
2015-2016	**Chair,** AERA Learning Sciences SIG
2013, 2014	**Ad hoc reviewer**, Israel Science Foundation
2013-2016	**Editorial Board Member**, Journal of Research in Science Teaching
2012-2015	**Member,** National Association for Research in Science Teaching, *Outstanding Dissertation Award Committee*
2012, 2013, 2014, 2015,	**Panelist member,** National Science Foundation Division on Research and Learning review panel

2017, 2019
2013, 2014 **Ad hoc reviewer**, Israel Science Foundation

Manuscript Reviewer

Cognition and Instruction
The Elementary School Journal
Journal of the Learning Sciences
Journal of Research in Science Teaching
Science Education
Journal of Pre-Collegiate Engineering Education
International Journal of Science Education

Proposal Reviewer for Professional Conferences

American Society for Engineering Education (ASEE)
Annual meeting for the American Educational Research Association Conference (AERA)
Annual meeting for the National Association for Research in Science Teaching (NARST)
International Conference of the Learning Sciences (ICLS)

University Service

2020-present	**Member,** Graduate Student Admissions Committee, University of Wisconsin Department of Curriculum and Instruction
2020-present	**Member,** Reconciliation Committee, University of Wisconsin Department of Curriculum and Instruction
2017-2019	**Chair,** Elementary Education Committee, University of Wisconsin Department of Curriculum and Instruction
2016-2019	**Personnel,** University of Wisconsin Department of Curriculum and Instruction
2013-present	**Member**, Elementary Education Committee, University of Wisconsin Department of Curriculum and Instruction
2013-2019	**Member,** Graduate Programs Committee, University of Wisconsin Department of Curriculum and Instruction
2010-2012	**Member,** Programs and Courses Committee, University of Texas, Department of Curriculum and Instruction
2008-2012	**Member,** Undergraduate Fellowship Committee, University of Texas, STEM Education Program
2011-2012	**Member,** iPad Working Group, University of Texas, College of Education
2010-2011	**Member,** Technology Integration in the Pre-Service Teacher Program, University of Texas, Department of Curriculum and Instruction

Service to the Public

August, 2018	**Leader of professional development workshop**, hosted by the School District of Waukesha and Madison Metropolitan School District, in Wisconsin
2017-present	**Advisory board member** for Tufts University NSF funded project
2017-present	**Advisory board member** for Arizona State University NSF funded project
2013-2015	**Advisory board member** for Lawrence Hall of Science NSF funded project
2013-2015	**Advisory board member** for a Washington State MSP project awarded to the Seattle Public Schools
July, 2014	**Co-leader of professional development workshop** hosted by National Science Education Leadership Development Forum. Smithsonian Institute, Alexandria, VA:

Supporting scientific practices: K-8 students arguing, explaining, and modeling.

October, 2012 **Co-leader of professional development workshop** presented to the KNOWLES Science Teaching Fellowes: *Argumentation and Explanation*

Professional Affiliations

American Educational Research Association
American Society for Engineering Education
International Society for the Learning Sciences
National Association for Research in Science Teaching