

ANNABEL STOLER

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My research focuses on designing learning environments that are critically caring and foster rich engagement with science practice. My work is grounded in a commitment to working in public schools, collaborating with teachers, and highlighting young people's voices. I am passionate about supporting pre-service teachers and preparing them to enter the profession with a vision of transformation and justice.

EDUCATION

Ph.D., Mathematics and Science Education

Boston University, 2025

Dissertation Title: Teaching in the Tangle: The Intertwined Relational and Epistemic Activity of Science Classrooms

Dissertation Committee: Eve Manz (Chair), Meghan Shaughnessy, Eric Cordero-Siy, and Enrique (Henry) Suárez (University of Massachusetts – Amherst)

Master of Education, Science Education

Boston University, 2020

Weissman Family Scholarship

Massachusetts Teaching Licensure

Middle School Mathematics/Science, 2015

Sheltered English Instruction (SEI) Endorsement

Bachelor of Arts, Biology

Oberlin College, 2013

AWARDS

2023 Sandra K. Abell Doctoral Fellow. Mentored by Dr. Laura Zangori and Dr. Christina Schwarz

RESEARCH EXPERIENCE

Research Assistant

NSF CAREER: Supporting Elementary Science Teaching and Learning by Integrating Uncertainty into Classroom Science Investigations. Principle Investigator Eve Manz (Boston University). 2020 – present.

- Engaged in co-design work with teachers and researchers to develop and refine four investigations in 2nd and 5th- grade science classrooms
- Collected video data and field notes from over 120 classroom visits
- Developed tools to support teachers to engage their students in planning investigations
- Published a website sharing the project's work (www.investigationsproject.org)
- Led student and teacher consent protocol and maintained compliance with institutional review board guidelines
- Mentored undergraduate and doctoral research assistants in using qualitative and design-based research methods
- Facilitated three multi-day “Summer Institute” workshops for the co-design team

Critical Online Reading & Evaluation (CORE): A Systematic Literature Review and Meta-analysis. Principle Investigators Elena Forzani (Boston University) and Julie Corrigan (Concordia University). Summer 2021.

- Screened abstracts for inclusion criteria
- Coded manuscripts for further review by principal investigators
- Met weekly with the research team to discuss themes and methods

TEACHING EXPERIENCE

Instructor of Record

Secondary Science Methods I (SED SC 570). Developed course syllabus, planned and implemented lessons, and supported students during their pre-practicum experience. Boston University; Fall 2021, Fall 2023, and Fall 2024.

Secondary Science Methods II (SED SC 572). Developed course syllabus, planned and implemented lessons, and supported students with licensure and job application processes during their student teaching experiences. Boston University; Spring 2022.

Elementary and Middle School Teacher

6th-Grade Science Teacher, Diamond Middle School, Lexington, MA 2016-2020

6th-Grade Math and Science Teacher, Conservatory Lab Charter School, Boston, MA 2015-2016

6th-8th Grade Math Teacher, Conservatory Lab Charter School, Boston, MA 2014-2015

5th-7th Grade Associate Teacher, Brooke Charter School, Boston, MA 2013-2014

PUBLICATIONS IN PEER-REVIEWED JOURNALS

Stoler, A., and Manz, E. (2024). Engaging elementary students in science practice: Strategies for helping children plan investigations. *Science & Children*, 61(4), 64–68.
<https://doi.org/10.1080/00368148.2024.2366017>

Manz, E., **Stoler**, A., Federico, L., Patton, S., Weaver, L., Diaz Silveira, G., & Nassar, S. (2024). What should we investigate?: Using a classroom decomposition chamber to support the development of investigation questions. *Science and Children*, 61(5), 33–40.
<https://doi.org/10.1080/00368148.2024.2384121>

MANUSCRIPTS IN PROGRESS

Manz, E. and **Stoler**, A. Understanding the relational dimensions of classroom modeling conversations. Manuscript accepted with major revisions for special issue in *Science Education*: “Toward Equitable and Expansive Modeling: Pushing the Boundaries of Scientific Modeling for PK-16 Learners” (August 2026).

BOOKS AND BOOK CHAPTERS

Manz, E. (in press). *Productive Uncertainty in Science Education: Engaging Students in Meaningful Science Practice*. Teachers College Press.

- Collaborated with Dr. Manz on all chapters throughout the writing process
- Co-Author of two chapters:
 - *Developing a Caring and Collective Classroom Culture*
 - *Helping Children Plan and Conduct Science Investigations*

PRESENTATIONS AT PEER-REVIEWED CONFERENCES

Stoler, A. (2025, June). “How can we lift them up and make them feel that their voices are valuable?”: A case study of one teacher’s pedagogical responsibilities. [Paper presentation]. International Society of the Learning Sciences Annual Meeting, Helsinki, Finland.

Manz, E. and **Stoler**, A. (2025, June). *Intertwining epistemic and relational work in classroom modeling* [Paper presentation]. International Society of the Learning Sciences Annual Meeting, Helsinki, Finland. Nominee for the Society’s Outstanding Paper Award.

Stoler, A. and Manz, E. (2025, March). *Simultaneously addressing epistemic and relational aspects of classroom activity: A teacher’s opportunities and challenges* [Presentation]. In Manz, E., and **Stoler**, A. (chairs), *New Approaches to Understanding Classroom Culture in Science Classrooms*. NARST Annual Meeting, National Harbor, MD.

Stoler, A., Stevens, K., Tichnor-Wagner, A., and Pizarro, A. (2025, March). *Developing collaborative discourse communities in classrooms*. [Workshop] Boston University Wheelock Forum “Thriving in the Middle School Years”, Boston, MA.

Stoler, A., Manz, E., and Garity, D. (2025, March). *Planning investigations in elementary classrooms*. [Presentation]. National Science Teaching Association (NSTA) National Conference, Philadelphia, PA.

Manz, E., **Stoler**, A., Garity, D., and George, G. (2025, March). *Using productive uncertainty to support meaningful science practice* [Presentation]. National Science Teaching Association (NSTA) National Conference, Philadelphia, PA.

Stoler, A. (2024, November). *Engaging elementary students in science practice: Strategies for helping children plan investigations*. [Presentation]. National Science Teaching Association (NSTA) National Conference, New Orleans, LA.

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- Manz, E. and **Stoler**, A. (2024, November). *Incorporating productive uncertainty in classroom investigations* [Hands-on workshop]. National Science Teaching Association (NSTA) National Conference, New Orleans, LA.
- Stoler**, A. (2024, June). *‘I’m one of the kids who is perceived as smart’: Exploring student experiences in a fifth-grade science classroom*. [Paper presentation]. International Society of the Learning Sciences Annual Meeting, Buffalo, NY.
- Stoler**, A. and Manz, E. (2024, June). *Critique and risk in elementary science modeling activity* [Structured poster session]. In Zhou, J. and Murphy, D. (chairs), *Perspectives from the field: Scaffolding peer critique and feedback*. International Society of the Learning Sciences Annual Meeting, Buffalo, NY.
- Stoler**, A. (2024, March). *Shifts in classroom culture through a progression of modeling activities*. [Poster presentation]. NARST Annual Conference, Denver, CO.
- Stoler**, A. and Manz, E. (2024, March). *Care and risk in a fifth-grade science classroom*. [Paper presentation]. In **Stoler**, A. (chair), *Developing critically caring science classrooms*. NARST Annual Conference, Denver, CO.
- Stoler**, A. and Manz, E. (2023, April) *Attending to care, risk, and classroom culture in scientific modeling*. [Structured poster session]. In Adah, E., Berland, L., and Jabar, L. (chairs), *Attending to the crevasse between equity and content-oriented goals in science teaching and learning*. Annual meeting of the American Educational Research Association, Chicago, IL.
- Stoler**, A. (2023, April). *Student conceptions of power, status, and care in an elementary science classroom*. [Poster presentation]. Accepted to the Graduate Student Committee Research Symposium at the NARST Annual Conference, Chicago, IL.
- Stoler**, A. (2022, October). *Equitable Modeling in Elementary Science Classrooms*. [Poster presentation]. Learning Sciences Graduate Student Conference, University of Indiana-Bloomington (virtual).
- Stoler**, A., Manz, E., and Georgen, C. (2022, March). *Planning routines for elementary science investigations*. [Poster presentation]. NARST Annual Conference, Vancouver, BC.
- Stoler**, A. (2021, November). *Developing routines for planning elementary science investigations* [Poster presentation]. Learning Sciences Graduate Student Conference, University of Illinois at Urbana-Champaign (virtual)
- Beckert, B., **Stoler**, A., Georgen, C., Manz, E., and Suarez, E. (2021, June) *Designing for home-based science learning: Infrastructuring within new openings and constraints*. [Poster

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presentation] The 15th International Conference of the Learning Sciences, Bochum, Germany (virtual). 3rd-place prize for best poster.

OTHER PRESENTATIONS AND PROFESSIONAL LEARNING FACILITATION

Stevens, K., Tichnor-Wagner, A., and **Stoler**, A. (2025, March). *Developing collaborative discourse communities in classrooms*. Workshop session at the Boston University Forum: Thriving in the Middle School Years. Boston, MA.

Manz, E. and **Stoler**, A. (2025, March). *Productive uncertainty in science classrooms: Why? How?*. Professional development session for science district leaders at Massachusetts Department of Elementary and Secondary Education (DESE), Everett, MA.

Manz, E. and **Stoler**, A. (2025, March and April). *Using productive uncertainty to support science teaching and learning*. Professional learning workshop for teachers at Somerville Public Schools, Somerville, MA.

Manz, E., **Stoler**, A., Diaz Silveira, G., and Nassar, S. (2023, July). *Investigations Project virtual workshop*. Three-day workshop for K-8 teachers across the country to develop science investigations centering productive uncertainty (virtual).

Stoler, A. (2023, March). *Engaging elementary students in science practice: Strategies for planning investigations*. Invited talk at the Wheelock Doctoral Forum at Boston University, Boston, MA.

Stoler, A. and Manz, E. (October 2022 – January 2023). *Science sensemaking and classroom culture*. Professional learning workshop for teachers at Somerville Public Schools, Somerville, MA.

PROFESSIONAL ACTIVITIES AND SERVICE

Editorial Assistant

Journal of Education, March 2024 - Present

Committee Member

NARST Outstanding Doctoral Research Committee, 2023-2025

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Conference Reviewer

International Society of the Learning Sciences Annual Meeting, 2024-2025

NARST Annual International Conference, 2022 - 2025

Graduate Student Research Symposium – NARST Annual International Conference, 2023

Learning Sciences Graduate Student Conference, 2021 and 2022

Professional Affiliations

American Educational Research Association (AERA), 2022 – present

NARST, 2021 – present

Science Educators for Equity, Diversity, and Social Justice (SEEDS), 2021 – present

International Society of the Learning Sciences (ISLS), 2020 – present

National Science Teaching Association (NSTA), 2015 – present

Massachusetts Association of Science Teachers (MAST), 2015 – present