Tracy L. Weston, Ph.D.

Professor
Education Studies
Middlebury College

Twilight Hall 108
Middlebury, VT 05753
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EDUCATION

Doctor of Philosophy — **The University of North Carolina, Chapel Hill**
2011 — Mathematics Education, Teacher Education
Dissertation: *Elementary preservice teachers' mathematical knowledge for teaching: Using situated case studies and educative experiences to examine and improve the development of MKT in teacher education*

Master of Arts — **The University of North Carolina, Chapel Hill**
2007 — Culture, Curriculum and Change
Thesis: "*Can you borrow from an already borrowed number?" Insights into second graders' understanding of place value*

Bachelor of Science — **The Pennsylvania State University**
2001 — Elementary and Kindergarten Education

RESEARCH AREAS

Ecological approaches in mathematics teacher education, teacher noticing, 360º video, *Knowledge Quartet*, mathematical knowledge in teaching, initial teacher education, antiracist teacher education, field-based teacher education

TEACHING ENDORSEMENTS

- Elementary Education (Grades K – 6)
- Middle Grades Mathematics (Grades 6 – 9)
- Additional certificates: Educating Children Outdoors (ECO), Project WILD, Aquatic WILD, Vermont Master Naturalist

PROFESSIONAL EXPERIENCE

Professor of Education Studies — **Middlebury College**
July 2026 – Present — Middlebury, Vermont

Department Chair of Education Studies — **Middlebury College**
July 2026 – Present; July 2021 – January 2024 — Middlebury, Vermont

Courses Taught:

- EDST 0115: Education in the USA
- EDST 0206: Environmental Education
- EDST 0238: Education Psychology II: Learning in the Community
- EDST 0305: Elementary Literacy and Social Studies Methods

- EDST 0306: Elementary Science Methods
- EDST 0307: Elementary Mathematics Methods
- EDST 0315: Elementary Mathematics and Science Methods
- EDST 0317: Children and the Arts
- EDST 0327: Field Experience in Secondary and Special Education
- EDST 0410: Student Teaching Seminar
- EDST 0405 – 407*:* Supervision of Student Teachers (Elementary)
- EDST 0415 – 417: Supervision of Student Teachers (Secondary)
- EDST 0430: Senior Seminar in Education Studies
- EDST 0500: Independent Studies (15)
- EDST 4002: Educators as Researchers (graduate-level course for P-12 educators)
- EDST 4003: Interpreting and Advancing Student Reasoning in Mathematics (graduate-level course for K-8 math specialists)
- EDST 4005: Understanding & Advancing Teacher Learning in Mathematics (graduate-level course for K-8 math specialists)

Environmental Studies Program, Affiliate Faculty (2018 – Present)

Associate Professor of Education Studies **Middlebury College**
July 2020 – June 2025 Middlebury, Vermont

Doctoral Committee Status **University of Idaho**
December 2023 – Present Moscow, Idaho

Assistant Professor of Education Studies (Tenure Track) **Middlebury College**
July 2017 – June 2020 Middlebury, Vermont

Visiting Assistant Professor of Education Studies **Middlebury College**
July 2014 – June 2017 Middlebury, Vermont

Assistant Professor of Curriculum and Instruction (Tenure Track) **University of Alabama**
August 2012 – May 2014 Tuscaloosa, Alabama

Department of Curriculum and Instruction, Elementary Mathematics Education
Courses Taught:

- Teaching Elementary Mathematics
- Elementary Practicum

Visiting Scholar **University of Cambridge**
August 2011 – December 2011 Cambridge, United Kingdom

- Taught in the Primary Postgraduate Certificate in Education Programme
- Coordinated an international research team for a project using the *Knowledge Quartet*
- STeM group involvement

Graduate Instructor **University of North Carolina**
January 2007 – May 2011 Chapel Hill, North Carolina

Courses Taught:

- Seminar on Teaching Elementary Grades
- Teaching Mathematics in the Elementary Grades
- Emergent Mathematics

Courses Co-Taught:

- Revisiting Real Numbers
- Learning and Development in the Elementary Classroom

University Supervisor — **University of North Carolina**
August 2007 – May 2011 — Chapel Hill, North Carolina

- Supervised and evaluated elementary preservice teachers
- Taught student teaching seminar

Graduate Teaching Assistant — **University of North Carolina**
Master's in Education for Experienced Teachers — Chapel Hill, North Carolina
January 2007 – May 2008

Courses:

- Designing Problem Tasks for Mathematics (grades 9 – 12 teachers)
- Revisiting Real Numbers (grades K – 8 teachers)
- Teacher as Researcher 1 (grades K – 12 teachers)
- Teacher as Researcher 2 (grades K – 12 teachers)

Classroom Teacher — **Chapel Hill-Carrboro City Schools**
August 2002 – June 2005 — Chapel Hill, North Carolina

- First grade teacher, Rashkis Elementary School, Seawell Elementary School
- Faculty representative to school governance committee
- Science curriculum committee member
- Head junior varsity and assistant varsity women's lacrosse coach

Classroom Teacher — **State College Area School District**
August 2001 – June 2002 — State College, Pennsylvania

- First grade teacher, Lemont Elementary School
- Coordinated home reading program

Professional Development School Intern — **State College Area School District/**
August 2000 – June 2001 — **The Pennsylvania State University**
State College, Pennsylvania

- Intern in first grade classroom
- University representative to strategic planning committee

PUBLICATIONS

JOURNAL ARTICLES (Peer Reviewed)

Weston, T. L. (2026). A systematic literature review of ecological conceptualizations in mathematics teacher education research and methodological implications. *Journal of Mathematics Teacher Education.* https://doi.org/10.1007/s10857-026-09778-7

Amador, J. M., **Weston, T. L.**, & Kosko, K. W. (2025). Video Prompts as Scaffolding for Noticing Students' Mathematical Thinking Using 360-Degree Videos: Comparing What is Noticed with How. *Journal für Mathematik-Didaktik, 46*(4). https://doi.org/10.1007/s13138-024-00255-3

Amador, J. M. & **Weston, T. L.** (2024). A review of analytic frameworks for noticing in mathematics and science: Comparing noticing frameworks across disciplines and over time. *International Journal of Science and Mathematics Education, 22*, 1739-1760. https://doi.org/10.1007/s10763-024-10452-8

Weston, T. L., & Amador, J. M. (2023). Teacher noticing: A literature review of mathematics and science teacher noticing conceptualizations. *School Science and Mathematics, 123*(7), 293-308. https://doi.org/10.1111/ssm.12629

Weston, T. L., & Amador, J. M. (2021). Investigating student teachers' noticing using 360º video of their own teaching. *Journal of Technology and Teacher Education, 29*(3), 311-340. https://doi.org/10.70725/532779nssvre

Kosko, K. W., **Weston, T. L.**, & Amador, J. (2021). 360º video as an immersive representation of practice: Interactions between reported benefits and teacher noticing. *Mathematics Teacher Education and Development, 23*(4), 162-181. https://mted.merga.net.au/index.php/mted/article/view/635

Amador, J. M., Kosko, K. W., **Weston, T.**, & Estapa, A. (2021). Prospective teachers' appraisal of technology platforms: comparing perception and complexity. *Technology, Pedagogy and Education*, *30*(3), 473-489. https://doi.org/10.1080/1475939X.2021.1915372

Amador, J. M., Estapa, A., Kosko, K., & **Weston, T.** (2021). Prospective teachers' noticing and mathematical decisions to respond: Using technology to approximate practice. *International Journal of Mathematical Education in Science and Technology, 52*(1), 3-22. https://doi.org/10.1080/0020739X.2019.1656828

Weston, T. L., Kosko, K. W., Amador, J. M., & Estapa, A. T. (2018). Preservice teachers' questioning: Comparing platforms for practice-based teacher education. *Journal of Technology and Teacher Education*, *26*(1), 149-172. https://www.learntechlib.org/p/181137/

Estapa, A., Amador, J., Kosko, K., **Weston, T.**, de Araujo, Z., & Aming-Attai, R. (2018). Preservice teachers' articulated noticing through pedagogies of practice. *Journal of Mathematics Teacher Education*, *21*(4), 387-415. https://doi.org/10.1007/s10857-017-9367-1

Amador, J. M., Estapa, A., de Araujo, Z., Kosko, K. W., & **Weston, T. L.** (2017). Eliciting and analyzing preservice teachers' mathematical noticing. *Mathematics Teacher Educator, 5*(2), 158-177. https://doi.org/10.5951/mathteaceduc.5.2.0158

Amador, J., **Weston, T.**, Estapa, A., Kosko, K., & de Araujo, Z. (2016). Animations as a transformational approximation of practice for preservice teachers to communicate professional noticing. *Journal of Technology and Teacher Education, 24*(2), 127-151. https://www.learntechlib.org/p/171240/

Weston, T. L., & Henderson, S. C. (2015). Coherent experiences: The new missing paradigm in teacher education. *The Educational Forum, 79*(3), 321-335. https://doi.org/10.1080/00131725.2015.1037514

de Araujo, Z., Amador, J., Estapa, A., **Weston, T.**, Aming-Attai, R., & Kosko, K. (2015). Animating preservice teachers' noticing. *Mathematics Teacher Education and Development, 17*(2), 25-44. https://www.learntechlib.org/p/192622/

Weston, T. L. (2013). Using the *Knowledge Quartet* to quantify mathematical knowledge in teaching: The development of a protocol for initial teacher education. *Research in Mathematics Education*, *15*(3), 286-302. https://doi.org/10.1080/14794802.2013.849865

EDITED BOOK CHAPTERS

Weston, T. L. (2019). Improving coherence in teacher education: Features of a field-based methods course partnership. In T. E. Hodges & A. C. Baum (Eds.), *Handbook of research on field-based teacher education* (pp. 166–191). Hershey, PA: IGI Global.

Weston, T. L. (2018). Using the *Knowledge Quartet* to support prospective teacher development during methods coursework. In S. E. Kastberg, A. M. Tyminski, A. E. Lischka & W. B. Sanchez (Eds.), *Building support for scholarly practices in mathematics methods* (pp.69-83). Charlotte, NC: Information Age Publishing.

Virmani, R., Taylor, M. W., Rumsey, C., with Box, T., . . . **Weston, T.**, & Woods, D. (2018). Bringing mathematics methods into classrooms. In S. E. Kastberg, A. M. Tyminski, A. E. Lischka & W. B. Sanchez (Eds.), *Building support for scholarly practices in mathematics methods* (pp.233-248). Charlotte, NC: Information Age Publishing.

PUBLISHED CONFERENCE PROCEEDINGS (Peer Reviewed)

Helliwell, T., **Weston, T.**, Coles, A. (2026). Ecological methodologies for mathematics education research. In H. Krzywacki, M. Hähkiöniemi, E. Haataja, M.S. Hannula & P. Hästö (Eds.). Proceedings of the 49th Conference of the International Group for the Psychology of Mathematics Education: General Contributions, pp. 322-323. PME.

Weston, T. L. (2025). Ecological conceptualizations in mathematics teacher education and teacher noticing. In C. Cornejo, P. Felmer, D. M. Gómez, P. Dartnell, P. Araya, A. Peri, & V. Randolph (Eds.). *Proceedings of the 48th Conference of the International Group for the Psychology of Mathematics Education*: Research Reports, Vol. 2, pp. 379-386. PME.

Amador, J. M., **Weston, T.**, & Kosko, K. (2022). Supporting noticing of students' mathematical thinking through 360º video and prompt scaffolding. In C. Fernández, S. Llinares, A. Gutiérrez, & N. Planas (Eds.). *Proceedings of the 45th Conference of the International Group for the Psychology of Mathematics Education:* Vol. 2, pp. 11-18. PME.

Weston, T. L., & Affolter, T. L. (2022). Practicing discomfort in teacher education. *Proceedings of the annual meeting of the American Educational Research Association.* AERA online Paper Repository. https://doi.org/10.3102/1885156

Weston, T. L., & Amador, J. M. (2018). Teacher questioning: comparing multi-media platforms in initial teacher education. In Bergqvist, E., Österholm, M., Granberg, C., & Sumpter, L. (Eds.). *Proceedings of the 42nd Conference of the International Group for the Psychology of Mathematics Education* (Vol. 5, p.191). PME.

Amador, J., Estapa, A., **Weston, T.**, & Kosko, K. (2016). Communicating professional noticing through animations as a transformational approximation of practice. In M. B. Wood, E. E. Turner, M. Civil, & A. J. Eli (Eds.), *Proceedings of the 38th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp.1447-1453). Tucson, AZ: The University of Arizona.

Weston, T. L., Kleve, B., & Rowland, T. (2012). Developing an online coding manual for *The Knowledge Quartet*: An international project. *Proceedings of the British Society for Research into Learning Mathematics, 32*(3), 179-184.

PEER REVIEWED CONFERENCE PRESENTATIONS

Helliwell, T., **Weston, T.**, Coles, A. (2026, July). *Ecological methodologies for mathematics education research.* Working Group presented at the 49th annual meeting of the International Group for the Psychology of Mathematics Education (PME), Helsinki, Finland.

Weston, T. L. (2025, July). *Ecological conceptualizations in mathematics teacher education and teacher noticing.* Research Report presented at the 48th annual meeting of the International Group for the Psychology of Mathematics Education (PME), Santiago, Chile.

Weston, T. L. & Emery, E. (2025, February). *Prospective teachers' licensure portfolios: A statewide collaborative to promote critical self-evaluation (and avoid edTPA)*. Individual Session presented at the annual meeting of the Association of Mathematics Teacher Educators (AMTE), Reno, NV.

Weston, T. L. (2024, July). *Ecological theories and teacher noticing.* Poster presented at the 15th International Congress on Mathematics Education (ICME), Sydney, Australia.

Weston, T. L. (2024, February). *Ecological approaches in mathematics and science teacher education.* Poster accepted by the annual meeting of the Association of Mathematics Teacher Educators (AMTE), Orlando, FL.

Weston, T. L., & Amador, J. M. (2023, February). *Making sense of noticing: Conceptualizing mathematics and science teacher noticing.* Individual session presented at the annual meeting of the Association of Mathematics Teacher Educators (AMTE), New Orleans, LA.

Amador, J. M., **Weston, T. L.**, & Kosko, K. W. (2022, July). *Supporting noticing of students' mathematical thinking through 360º video and prompt scaffolding*. Report presented at the 45th annual meeting of the International Group for the Psychology of Mathematics Education (PME), Alicante, Spain.

Weston, T. L., Kosko, K. W., & Amador, J. M. (2022, February). *Using 360º videos in mathematics teacher education methods courses and field experiences.* Individual session presented at the annual meeting of the Association of Mathematics Teacher Educators (AMTE), Las Vegas, NV.

Weston, T., & Affolter, T. (2020, April—cancelled due to COVID-19). *Practicing discomfort in teacher education.* Research Paper accepted to the annual meeting of the American Educational Research Association (AERA).

Weston, T., & Baker, K. (2020, February). *Bringing teacher education outdoors.* Individual session presented at the annual meeting of the Association of Mathematics Teacher Educators (AMTE), Phoenix, AZ.

Kosko, K., **Weston, T.**, & Amador, J. (2020, February). *Incorporating immersive 360º video in mathematics teacher education: Potential and challenges.* Individual session presented at the annual meeting of the Association of Mathematics Teacher Educators (AMTE), Phoenix, AZ.

Estapa, A., **Weston, T.**, & Amador, J. (2019, February). *Preservice teachers' decision making: What happens when the answer is wrong?* Individual session presented at the annual meeting of the Association of Mathematics Teacher Educators (AMTE), Orlando, FL.

Weston, T., & Amador, J. (2018, July). *Teacher questioning: Comparing multi-media platforms for initial teacher education.* Report presented at the 42nd annual meeting of the International Group for the Psychology of Mathematics Education (PME), Umeå, Sweden.

Weston, T., Johnston, C., & Canavan, C. (2018, March). *Towards a more just, compassionate, and equitable society: A methods course partnership to develop Next Gen teacher candidates.* Individual session presented at the annual meeting of the National Association for Professional Development Schools (NAPDS), Jacksonville, FL.

Weston, T., Kosko, K., Amador, J., & Estapa, A. (2018, February). *Comparing multi-media platforms: Approximating practice & aligning instruction.* Individual session presented at the annual meeting of the Association of Mathematics Teacher Educators (AMTE), Houston, TX.

Amador, J., Estapa, A., Kosko, K., & **Weston, T.** (2018, February). *Extending noticing to practice: Analyzing preservice teachers' pedagogical enactment based on the professional noticing framework.* Individual session presented at the annual meeting of the Association of Mathematics Teacher Educators (AMTE), Houston, TX.

Kosko, K. W., **Weston, T. L.**, Estapa, A., & Amador, J. (2017, April). *Preservice teachers' approximations of questioning*. Roundtable presented at the annual meeting for the American Educational Research Association (AERA, Division K), San Antonio, TX.

Amador, J., Estapa, A., **Weston, T.**, & Kosko, K. (2016, November). *Communicating professional noticing through animations as a transformational approximation of practice.* Research report presented at the 38th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA), Tucson, AZ.

Weston, T. L. (2016, July). *Developing knowledge of representations in initial teacher education.* Poster presented at the 13th International Congress on Mathematics Education (ICME), Hamburg, Germany.

Weston, T. L., & Kastberg, S. L. (2016, January). *Exploring frameworks: Building our practice*. Individual session presented at the annual meeting of the Association of Mathematics Teacher Educators (AMTE), Irvine, CA.

Amador, J., Estapa, A., & **Weston, T.** (2016, January). *Mathematical nature of preservice teacher noticing through video animations as an approximation of practice*. Individual session presented at the annual meeting of the Association of Mathematics Teacher Educators (AMTE), Irvine, CA.

Estapa, A., Amador, J., de Araujo, Z., **Weston, T.**, & Aming-Attai, R. (2015, April). *Noticing transfer across mediums for future elementary teachers*. Paper presented at the National Council of Teachers of Mathematics Annual Research Conference (NCTM), Boston, MA.

Amador, J., Estapa, A., **Weston, T.**, de Araujo, Z., Kosko, K., & Aming-Attai, R. (2015, February). *Noticing exposed through preservice teachers' video animations*. Individual session presented at the annual meeting of the Association of Mathematics Teacher Educators (AMTE), Orlando, FL.

Weston, T. L., & Henderson, S.C. (2014, April). *Coherent experiences: The new 'missing paradigm' in teacher education.* Poster presented at the annual meeting of the American Educational Research Association (AERA), Philadelphia, PA.

Henderson, S.C., & **Weston, T. L.** (2014, April). *Uncovering a problem of practice: Supervisors' field observations of preservice teachers' approximations of practice.* Roundtable presented at the annual meeting of the American Educational Research Association (AERA), Philadelphia, PA.

Gleason, J., **Weston, T.**, Livers, S., & Zelkowski, J. (2014, April). *A new classroom observation instrument for assessing K–16 mathematics classrooms.* Individual session presented at the annual Research Conference of the National Council of Teachers of Mathematics (NCTM), New Orleans, LA.

Estapa, A., Amador, J., Kosko, K, de Araujo, Z., **Weston, T.**, & Aming-Attai, R. (2014, February). *Noticing in action: An animated look into the noticing of future elementary teachers.* Poster presented at the annual meeting of the Association of Mathematics Teacher Educators (AMTE), Irvine, CA.

Henderson, S.C., & **Weston, T.** (2013, April). *Iterative development of a literacy methods course inside a "failing" school.* Research Paper presented at the annual meeting of the American Educational Research Association (AERA), San Francisco, CA.

Weston, T. L. (2013, April). *The* Knowledge Quartet *researcher coding manual, an international project.* Individual session presented at the annual meeting of the National Council of Teachers of Mathematics Research Presession (NCTM), Denver, CO.

Weston, T. L., & Henderson, S. C. (2013, February). *The iterative development of a cross-content, practice-based methods course.* Individual session presented at the annual meeting of the National Association for Professional Development Schools (NAPDS), New Orleans, LA.

Weston, T., & Rowland, T. (2012, November). *Developing an online coding manual for the* Knowledge Quartet*: An international project.* Individual session presented at the joint meeting of the British Society for Research into Learning Mathematics and Nordic Society for Research in Mathematics Education (BSRLM/NoRME), University of Cambridge, Cambridge, England.

Weston, T. L. (2012, November). *Improving teaching practices with the Knowledge Quartet.* Individual session presented at the annual meeting of the Alabama Council for Teachers of Mathematics (ACTM), Montgomery, AL.

Johnson, T. L. (2012, April). *Elementary preservice teachers' development of mathematical knowledge for teaching: Improving the development of MKT in teacher education.* Accepted research presentation at the annual meeting of the National Council of Teachers of Mathematics Research Presession (NCTM), Philadelphia, PA.

Johnson, T. L. (2011, November). *Tiers of enacted mathematical knowledge for teaching.* Research presentation at the meeting of the British Society for Research into Learning Mathematics (BSRLM), Oxford University, Oxford, England.

Johnson, T. L., Willox, L., Brown, C., & Persson, J. (2010, February). *LIFE: A proposed model of a preservice teacher, mentor teacher, university supervisor nexis.* Individual session presented at the annual meeting of the American Association of Colleges for Teacher Education (AACTE), Atlanta, GA.

Johnson, T. L. (2010, January). *John Dewey and educative experiences.* Presented to the John Dewey class, University of North Carolina, Chapel Hill, NC. [Invited presentation]

Johnson, T. L. (2009, October). *Patterns: Essential understandings.* Individual session presented at the annual meeting of the North Carolina Council of Teachers of Mathematics (NCCTM), Greensboro, NC.

Johnson, T. L. (2009, September). *John Dewey on educative experiences.* Paper presentation at the annual meeting of the South Atlantic Philosophy of Education Society (SAPES), Chapel Hill, NC.

Johnson, T. L. (2008, September). *Seven and eight year olds' conception of place value*. Accepted research presentation at the annual meeting of the European Early Childhood Educational Research Association, Stavanger, Norway.

Johnson, T. L., & Ringer, C. (2007, October). *Thinking in tens: What happens by the end of second grade?* Individual session presented at the annual meeting of the North Carolina Council of Teachers of Mathematics (NCCTM), Greensboro, NC.

OTHER TALKS & CONFERENCE PRESENTATIONS

Weston, T. L. (2023, March). *An introduction to teacher noticing*, Vermont Mathematics Institute, Colchester, VT. [Invited presentation]

Weston, T. (2019, May). *Teacher candidate Vermont Licensure Portfolio surveys*. Roundtable presented at the annual conference of the Educator Preparation Inquiry Collaborative (EPIC), St. Michael's College, Colchester, VT.

Weston, T. L. (2015, October). *Guided teaching within a methods course.* Poster presented at the National Science Foundation-funded Scholarly Inquiry and Practices Conference for Mathematics Education Methods, Atlanta, GA.

Johnson, T. L. (2011, November). *Elementary preservice teachers' mathematical knowledge for teaching*, Research presentation at the Cambridge Mathematics Education Colloquia, University of Cambridge, Cambridge, England. [Invited presentation]

Johnson, T. L. (2011, November). *Scholarly preparation.* Doctoral Seminar. University of North Carolina, Chapel Hill, NC. [Invited presentation]

Johnson, T. L. (2010, February). *Successfully navigating comprehensive examinations.* School of Education 2010 Research Symposium. University of North Carolina, Chapel Hill, NC. [Invited presentation]

Johnson, T. L. (2008, September). *Mathematics tutoring in the elementary grades.* Presented to the University of North Carolina Teaching Fellows, Chapel Hill, NC. [Invited presentation]

Weston, T. L. (2001, May). *First graders' decision making*. Research presented at the annual Penn State Inquiry Conference, State College, PA.

PUBLIC SCHOLARSHIP

www.knowledgequartet.org

Co-led an international research team with Dr. Tim Rowland for a project using the *Knowledge Quartet* (see Weston, Kleve & Rowland, 2012). Website development and content for online coding manual and case exemplars. Some of our work is available as an open-access resource for mathematics teachers, researchers, and teacher educators.

INTERNATIONAL, NATIONAL and STATE PROFESSIONAL SERVICE

International

North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA), Conference Strand Leader for Pre-Service Teacher Education (2024).

National

University of Idaho, Doctoral Committee Member, Katherine Prummer, Major: Curriculum & Instruction (mathematics education), College of Graduate Studies (2023 – Present).

National Science Foundation, Grant Reviewer (2018).

State

Education Preparation Inquiry Collaborative (EPIC) Executive Board, Vermont scholarly association for inquiry on educator preparation. Coordinate and lead state-wide professional learning sessions about Vermont Licensure Portfolio and an annual conference. Report to Vermont Standards Board of Professional Educators (October 2019 – Present; Secretary September 2022 – Present).

Education Preparation Inquiry Collaborative (EPIC) Institutional Representative, Vermont scholarly association for inquiry on educator preparation. Comprised of teacher educators from all Educator Preparation Programs in Vermont. Representative for Middlebury College (2015 – Present).

Results-Oriented Program Approval (ROPA), Chair of Review Team for Norwich University. External review of licensure programs and site visit by the Vermont Agency

of Education, VT teacher education professors, and VT teachers and administrators (January-April, 2024; site visit April 1-3, 2024).

State-Wide Scoring System (SWSS), Volunteer external portfolio scoring for state-wide calibration system, Educator Preparation Inquiry Collaborative (2021 – Present).

State Science Primary Leadership Team, Higher Education representative to 15-person team organized through the Vermont Agency of Education (2014 – 2017).

MIDDLEBURY COLLEGE SERVICE

Department Chair, Education Studies (July 2021 – January 2024 & July 2026 – Present).

Licensure Officer, Education Studies (July 2016 – Present).
College Liaison to Vermont Agency of Education for undergraduate licensure programs.

Education Committee (2017 – Present).
Co-director. Comprised of colleagues in ACSD and Middlebury to facilitate collaboration between Middlebury College and the Addison Central School District (ACSD) on issues specific to teacher professional development for pre-service (undergraduate) and in-service (currently employed) teachers. Oversee professional development opportunities that EDST faculty offer for ACSD staff and faculty. The Education Committee serves both the needs of the undergraduate college and the larger Middlebury community. Outputs include: developed and presented workshops, wrote a grant, and designed professional development workshops and courses.

International Research Travel Fund (November 2024).
Application Reviewer.

Center for Teaching, Learning, and Research (CTLR) Advisory Committee (2023 – 2024).

Athletics Policy Committee (2021 – 2022).

Addison Central/Middlebury College Professional Development Collaborative (2017 – 2020).
Implementation Committee Co-director. Representatives from the district and College worked together to design a Professional Development Collaborative to improve equity, P-12 education, and professional development for in-service and pre-service teachers.

Posse Mentor (July 2015 – February 2020).
Mentor for 11-scholar cohort from New York City. Weekly group meetings and individual meetings every two weeks for the first two years (2015 – 2017). Continued mentoring through graduation.

MiddArts Committee (July 2014 – March 2020).

Coordinated programming between the Education Studies Program, Mahaney Center for the Arts, and Addison Central School District.

Results-Oriented Program Approval (ROPA) (2018).
External review of the EDST licensure program and site visit by the Vermont Agency of Education, VT teacher education professors, and VT teachers and administrators. Site visit November 7-9, 2018. (Next review: 2026).

Judicial Affairs Committee (2017 – 2018).
Community Board.

Addison Central/Middlebury College Partnership (2016 – 2017).
Steering Committee. Collaboration between Superintendent, Director of Teaching & Learning, Two Education Studies Professors, and Special Assistant to the College President to design partnership work between Addison Central School District and the College. Memorandum of Understanding finalized August 2017.

Friends of International Students (FIS) (September 2014 – May 2018).
Host family.

First-year Student Reading Group (September 2015).

LOCAL TEACHING and PROFESSIONAL SERVICE

Understanding and Advancing Teacher Learning in Mathematics, EDST 4005,
Designed and taught course for local K-8 math specialists (September 2026 – June 2027).

Interpreting and Advancing Student Reasoning in Mathematics, EDST 4003,
Designed and taught course for local K-8 math specialists and curriculum coordinators (September 2025 – June 2026).

Educators as Researchers, EDST 4002, Designed and taught research methods course for local P-12 educators. Year-long research projects presented at the First Annual Addison Central Middlebury Partnership Research Symposium in June 2025 (September 2024 – June 2025).

Whiteness and Antiracism, Professional Development for Educators, Designed, coordinated, and co-taught six-week sessions for local K-12 educators to provide foundational learning about racism and antiblackness in America, antiracism, and provide teaching resources to help educators meet the present moment (Summer 2020; Spring 2021).

Teacher Induction Program, Designed a two-year graduate program for local K-12 educators new to teaching and new to the district to provide foundational learning about high-leverage practices, teacher noticing, and community resources (2019).

Mary Hogan Brook Trout Release Day, third-grade science teaching about ecosystems, Robert Frost Interpretive Trail, Ripton VT (May 2016, 2017, 2019).

***How to Learn Math for Teachers* Co-Leader**, math professional development series for Addison Central Supervisory Union K-12 teachers and Middlebury College licensure students, Middlebury College (2016 – 2017).

MiddSTEAM, STEAM camp for middle school girls, math session co-leader (April 2016).

Next Generation Science Standards Professional Learning Series, Coordinated a day-long professional development session hosted at Kirk Alumni Center for 93 teachers (November 2015).

Strategic Plan Steering Committee, Addison Central Supervisory Union. College representative to develop a new strategic plan for ACSU (August 2014 – June 2015).

Volunteer, Mary Hogan Elementary School, weekly math teaching (September 2014 – March 2020).

EDITORIAL SERVICE

Reviewer

Journals

Journal of Technology and Teacher Education

Journal of Teacher Education

Journal of Mathematics Teacher Education

Journal for Research in Mathematics Education

Research in Mathematics Education

School Science and Mathematics

Teacher's College Record

Teaching and Teacher Education

The Urban Review

Urban Education

Books

Handbook of Research on Field-based Teacher Education

Mathematics Teacher Noticing in Latin America

Conferences

Annual Meeting of the North American Chapter of the International Group for the

Psychology of Mathematics Education

Annual Meeting of the Association of Mathematics Teacher Educators

Congress of the European Society for Research in Mathematics Education

National Council of Teachers of Mathematics Research Conference

PROFESSIONAL DEVELOPMENT

Natural History Fundamentals, North Branch Nature Center Educator Institute. Immersive study of birds, tree and plant identification, geology, and stream ecology (June 29 – July 3, 2026).

Education Preparation Inquiry Collaborative (EPIC): Scholarly association for inquiry on educator preparation. Professional Learning Sessions about the Vermont Licensure Portfolio (2015 – present); Annual Conference (May 2016 – present).

State-Wide Scoring System (SWSS), Volunteer external portfolio scoring for state-wide calibration system, Educator Preparation Inquiry Collaborative (2021 – Present).

Post-Capitalist Ecology, Night School Bar virtual course, Durham, NC (Summer 2023).

Aquatic WILD Certification, Vermont Fish & Wildlife, Middlebury College (January 12, 2023).

Consortium for Excellence in Teacher Education, Attended 2-day annual conference for New England liberal arts colleges with teacher certification programs. Colby College, Waterville, Maine (October 27 – 28, 2022).

Vermont Master Naturalist Program, Selected to be part of the first Middlebury cohort for year-long program about Vermont's natural and cultural history. Completed a community-based project with Mary Hogan School (2021 – 2022).

Building a Sense of Place Through a Sense of Taste, North Branch Nature Center, Webinar (April 2, 2020).

Asynchronous Online Instruction, Association of Mathematics Teacher Educators (AMTE), Webinar (March 18, 2020).

Synchronous Online Instruction, Association of Mathematics Teacher Educators (AMTE), Webinar (March 17, 2020).

Using Crosscutting Concepts to Prompt Student Sensemaking of Phenomena, Vermont Science Teachers Association (VSTA), Middlebury College (January 16, 2020).

Project WILD Certification, Vermont Fish & Wildlife, Middlebury College (January 14, 2020).

Engaged Listening Project, Faculty Fellow, Middlebury College, developing tools for listening and deliberation in the classroom (Fall semester 2019).

Social Justice Teaching & Facilitating Critical Conversations Workshops, Teaching Tolerance, Boston MA (August 16 – 17, 2019).

360º Video Training and Collaboration, Kent State University, OH (August 4 – 7, 2019).

Inquiry Design Model (IDM) Summer Institute, C3 Teachers and National Council for the Social Studies, Washington D.C. (July 22 – 23, 2019).

PossePlus Retreat, Posse Foundation, annual weekend retreat attended by Posse scholars, other students, faculty and administration, to discuss an important campus issue (March 2016 – 2019).

Educating Children Outside (ECO) Institute, Level 1 Training, week-long nature immersion course for teachers, North Branch Nature Center, Montpelier VT (June 25 – 28, 2018).

How to Learn Math for Teachers, Stanford University, online course (2016 – 2017).

Next Generation Science Standards (NGSS), Addison Central Supervisory Union, Weybridge Elementary School, Weybridge VT (February 23, 2016).
NGSS Professional Learning Series: Three-dimensional learning in Next Generation Science Standards, Carla Zembal-Saul/Vermont Agency of Education, Norwich, Middlebury, and Shelburne, VT (2016 – 2017).

POSSE Mentor Training, Posse Foundation, regional training, New York City (June 2016).

Faculty Reading Group, Middlebury College, Ta-Nehisi Coates' *Between the World and Me* (August 2015).

Summer Session on Contemplative Pedagogy, Smith College, week-long investigation into how contemplative practices support teaching, learning, and engaged action in post-secondary education (August 2015).

Next Generation Science Standards Network States EQuIP Meeting, Higher Education representative for the six-person Vermont team, Washington D.C. (June 2015).

POSSE Mentor Training, Posse Foundation, week-long national and regional training, New York City (June 2015).

Culture in the Mathematics Classroom, University of Northern Colorado, one-week national symposium on integrating equity and social justice within mathematics education (June 2014).

Service, Teaching and Research (STaR) Fellows Program, Fourth cohort, National Science Foundation-sponsored national program for early-career mathematics educators Irvine, California (February 4-6, 2014).

Service, Teaching and Research (STaR) Fellows Program, Fourth cohort, National Science Foundation-sponsored national program for early-career mathematics educators (2013 – 2014). Park City, Utah (July 13-19 2013).

Elementary Mathematics Laboratory, University of Michigan, two-week program led by Dr. Deborah Ball (Summer 2013).

Safe Zone Ally Training, LGBTQA+ community, University of Alabama (December 2012).

Alabama REACH Training, Program supports university students that are current or former foster youth, orphans, or homeless youth, University of Alabama (December 2012).

PROFESSIONAL ORGANIZATIONS

State Organizations

- Educator Preparation Inquiry Collaborative (EPIC): Scholarly association for inquiry on educator preparation, comprised of Vermont teacher educators (2015 – Present) *[Executive Board: Secretary]*
- Vermont Council for Teacher Educators: Faculty from Vermont institutions of higher education that award teacher certification
- Alabama Council of Teachers of Mathematics (2012 – 2014)
- North Carolina Council of Teachers of Mathematics (2006 – 2012)

Regional Organization

- Consortium for Excellence in Teacher Education: Association of teacher education programs in selective, private liberal arts colleges and universities located in the Northeast

National Organizations

- American Educational Research Association, SIG: Research in Mathematics Education
- Association of Mathematics Teacher Educators
- National Council of Teachers of Mathematics
- National Association for Professional Development Schools

International Organizations

- Psychology of Mathematics Education, North America Chapter
- International Group for the Psychology of Mathematics Education
- British Society for Research into Learning Mathematics (2011 – 2013)