

Lauren P. O'Neill Madden, Ph.D.

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PROFESSIONAL PREPARATION

North Carolina State University, Raleigh, NC

Ph.D., Science Education. May 2011.

Dissertation Title: Examining Elementary Teachers' Identities through Analysis of Student Science Notebooks

University of South Carolina, Columbia SC

M.S., Marine Science - Chemical Oceanography. May 2004.

Thesis Title: Organic and Inorganic Phosphorus Fractionation across an Oxidic-Anoxic Interface

University of New Hampshire, Durham, NH

B.A., Earth Science - Oceanography. Minor - Chemistry. May 2002.

TEACHER LICENSURE & TRAINING

NC Middle Grades Science Certification, May 2009

SC Middle Grades Science Certification, October 2004

North Carolina State University Summer Institute: Faculty Training in Instructional Technology, May 2010

University Classroom Teaching Course, University of South Carolina, August, 2002

PROFESSIONAL APPOINTMENTS

2011- present The College of New Jersey, Ewing, NJ
Professor, Elementary and Early Childhood Education (Aug. 2021-present)
Associate Professor, Elementary and Early Childhood (Aug. 2016- July 2021)
Assistant Professor, Elementary and Early Childhood Education (Aug. 2011-July 2016)

2008-2011 Strategic Evaluations, Durham, NC
Consultant Research Associate

2006-2007 Horizon Research Inc., Chapel Hill, NC
Science Education Research Associate

2004-2006 Richland School District One, Columbia, SC
Seventh-Grade Science Teacher, Hand Middle School
Science and Mathematics After School Teacher, Hand Middle School

RESEARCH EXPERIENCE

2022-2023 Building Capacity for K-8 Sustainable STEM Teacher Leaders in New Jersey, The College of New Jersey. PI: National Science Foundation Noyce Teaching Fellows Award Number: 2150944 (\$73,540)

2022-2024 Expanding Project SEA: Science, Education, and Action, School of Education, The College of New Jersey. PI: New Jersey Sea Grant Consortium (\$140,000)

2020-present Project SEA: Science, Education, and Action, School of Education, The College of New Jersey
PI: New Jersey Sea Grant Consortium (\$137,000)

2017-2020 Environmental Sustainability Education Initiative, School of Education, The College of New Jersey
PI: US EPA Environmental Education Grant: Eco-Teachers Protecting Water and Connecting Minds

(\$91,000)

- 2017-present Department of Science, Technology, Engineering and Mathematics Education, North Carolina State University (Biogen Foundation, \$6150)
Research Team Member: Enclothed Cognition and Science Identity
PI: M. Gail Jones, Ph.D., Co-PIs: Sarah Carrier, Ph.D., Tammy Dutton Lee, Ph.D. (East Carolina)
- 2017-2019 Elementary and Early Childhood Education Department, School of Education, The College of New Jersey, Ewing, NJ (TCNJ- Support of Scholarly Activity [SOSA], 6-credit course release over 2 years)
PI: Paving the Path forward for Environmental Sustainability Education
- 2015-present Physics Department, School of Science, The College of New Jersey, Ewing, NJ
Co-PI NSF Noyce Scholarships and Stipends: Preparing Highly Qualified Physics Teachers (award #1557357, \$1.197 Million)
PI: Nathan Magee, Ph.D., Co-PIs: AJ Richards, PhD, and Paul Wiita, Ph.D.
- 2014-present School of Education, The College of New Jersey, Ewing, NJ
Coordinator and PI - Environmental Sustainability Education Initiative
- Summer 2015 Elementary and Early Childhood Education Department, School of Education, The College of New Jersey, Ewing, NJ (TCNJ-Mentored Undergraduate Student Experience [MUSE], \$5576)
PI: Growing Green Thinkers
- 2013-2015 Elementary and Early Childhood Education Department, School of Education, The College of New Jersey, Ewing, NJ (TCNJ- Support of Scholarly Activity [SOSA], 6-credit course release over 2 years)
PI: Understanding the Benefits of Scientist-Educator Interactions
- Summer 2012 Elementary and Early Childhood Education Department, School of Education, The College of New Jersey, Ewing, NJ (TCNJ-Mentored Undergraduate Student Experience [MUSE], \$8757)
Co-PI: Developing Successful Paired Placements among Preservice Teachers
Co-PI: Louise Ammentorp, Ph.D.

PUBLICATIONS

Textbook

Madden, L. (2022). *Elementary Science Methods: An Assets-Based Approach to Teaching, Learning, and Advocacy, Grades K-6*. Lanham, MD: Rowman & Littlefield.

Edited Volumes

Madden, L. (2022). (Author and Section Ed.). Professional learning of in-service science teachers: An Introduction. In J. Luft and M. G. Jones (Eds). *Handbook of Research on Science Teacher Education*. Routledge.

Dell'Angelo, T., Ammentorp, L. & Madden, L. (Eds). (2017). *Using Photography and Other Arts-based Methods with English Language Learners: Guidance, Resources and Activities for K-12 Educators*. Lanham, MD: Rowman and Littlefield.

Refereed Journal Articles Under Review and Published

Madden, L., Ammentorp, L., Magee, N., & Taylor, G. (in review, 2022). Marine Science, Climate Change, and the Next Generation Science Standards: Understanding the Knowledge and Perspectives of K-8 New Jersey Teachers. Submitted to *Current: The Journal of Marine Education*.

- Madden, L.** & Wang, M. (2022). Climate Change Education in New Jersey. *Green Teacher*, 131. Retrieved from: <https://greenteacher.com/climate-change-education-in-new-jersey/>
- Madden, L.**, Eriksson, S., Magee, N., Chessler, M., & Vaughan, D. G. (2022). "I Fell in Love with Physics and Wanted to Share that Love with Others:" A Mixed-Methods Analysis of Faculty and Student Perspectives on Choosing to Teach Physics. *Journal of Science Teacher Education*, 33(5), 488-508.
- Madden, L.**, Blatt, C., Ammentorp, L., Heddy, E., Kneis, D., & Stanton, N. (2022). From Science in the Art Gallery to Art in the Science Classroom. *Journal of College Science Teaching*, 51(6).
- Madden, L.**, Ammentorp, L., Heddy, E., Stanton, N., & McCotter, S. (2021). Reflection in action: Environmental education professional development with two cohorts. *Innovations in Science Teacher Education*. Retrieved from <https://innovations.theaste.org/reflection-in-action-environmental-education-professional-development-with-two-cohorts/>.
- Madden, L.**, Carroll, S. Z., & Schuler, A. K. (2021). Elevating the Voices for All Learners through Shared Stories of Science Learning: Lessons and Advice from Two Groups of College Students. *Journal of Science Education for Students with Disabilities*, 24(1), 3.
- Corevelyn, H., **Madden, L.** & Ammentorp, L. (2020). Growing Environmental Hope Amid a Pandemic. *Green Teacher*, 124, 31-34. Retrieved from : <https://greenteacher.com/growing-environmental-hope-amid-a-pandemic/>
- Madden, L.** (2020). Harnessing Divine Nonchalance: Teaching Science in a Pandemic. *Electronic Journal for Research in Science & Mathematics Education*. Retrieved from: <https://ejse.southwestern.edu/article/view/20284>
- Carrier, S.J., Jones, M.G., Ennes, M., **Madden, L.**, Lee, T., Cayton, E., Chesnutt, K., Huff, P., Phillips, L., & Bellino, M. (2020). Stereotypes of scientists: Seeds of progress and recommendations for elementary teachers. *Science Educator*, 27(2), 1-7.
- Jones, M. G., Lee, T., Chesnutt, K., Carrier, S., Ennes, M., Cayton, E., **Madden, L.** & Huff, P. (2019). Enclotted cognition: putting lab coats to the test. *International Journal of Science Education*, 41(14), 1962-1976.
- Madden, L.** & DiVanno, R. (2019). Environmental Sustainability Education at Three Elementary Schools. *Journal of Sustainability Education*, 19. Retrieved from: http://www.jsedimensions.org/wordpress/category/education_setting/education_k12/
- Belber, M. & **Madden, L.** (2018). Thinking Outside the Bin: Recycling and Upcycling as Life Skills for Students with Intellectual Disabilities. *Green Teacher*, 117, 7-9.
- Madden, L.** (2018). Teaching Science is a Sacred Act. *The Educational Forum*, 82(3), 303-308.
- Ammentorp, L., & **Madden, L.** (2018). Maximizing Chances for Success in Pre-service Teacher Collaboration. *The Educational Forum*, 82(1), 85-96.
- Madden, L.**, Jones, M.G., & Childers, G. (2017). Teacher Education: Modes of Communication Within Asynchronous and Synchronous Communication Platforms. *Journal of Classroom Interactions*, 52 (2), 16-30.
- Madden, L.**, & Liang, J. (2017). Young children's ideas about environment: perspectives from three early childhood educational settings. *Environmental Education Research*, 23 (8), 1055-1071.
- Madden, L.**, Beyers, J., & O'Brien, S. (2016). The Importance of STEM Education in the Elementary Grades: Learning from Pre-service and Novice Teachers' Perspectives. *Electronic Journal of Science Education*, 20(5).
- Madden, L.**, Seifried, J., Farnum, K., & D'Armiento, A. (2016). When discrepant events change the plans: An unexpected investigation of physical properties and reactions. *Science Activities: Classroom Projects and Curriculum Ideas*, 53(2), 68-73.
- Madden, L.**, & Dell' Angelo, T. (2016). Using Photojournals to Develop Ecoliteracy in a Blended Environmental Science Course. *Journal of College Science Teaching*, 46(1), 26-29.
- Madden, L.** & McGovern, C. (2016). From Stems to STEM. *Green Teacher*, 108, 35-37.
- Goldberg, R., Magee, N., & **Madden, L.** (2015). Enhancing Middle School Climate Science Instruction through Using Authentic Data. *Science Scope*, 38 (8), 25-32.
- Madden, L.**, & Wiebe, E. (2015). Multiple Perspectives on Elementary Teachers' Science Identities: A case study. *International Journal of Science Education*, 37(3), 391-410.
- Madden, L.**, Peel, A., & Watson, H. (2014). The Poetry of Dandelions: Merging Content-Area Literacy and Science Content Knowledge in a Fourth-Grade Science Classroom. *Science Activities: Classroom Projects and Curriculum Ideas*, 51(4), 129-135.

- Ammentorp, L., & **Madden, L.** (2014). Partnered Placements: Creating and Supporting Successful Collaboration Among Preservice Teachers. *Journal of Early Childhood Teacher Education*, 35(2), 135-149.
- Madden, L.**, & Wiebe, E.N. (2013). How Teacher Identity Shapes Science Notebook Use: Curriculum as Experienced by Students. *Research in Science Education*, 43(6), 2567-2592.
- Madden, L.**, & Joshi, A. (2013). What does culture have to do with teaching science?
A case in point: Teaching plant growth from an Asian-Indian Hindu lens. *Science and Children*, 51(1), 66-69.
- Madden, L.**, Ammentorp, L., DeNarie, J., & Farrell, T. (2013). Experience is the Best Teacher: Reflections on the Benefits of Faculty-Undergraduate Research Collaboration in Teacher Education. *CUR Quarterly on the Web*, 34 (1), 15-20. Retrieved from: http://www.cur.org/assets/1/23/Fall2013_v34.1_madden.ammentorp.denarie.farrell.pdf
- Madden, L.**, Jones, M., G., & Blanchard, M. (2013). Shared photonarratives in an online master's course: Reflection, context and community. *Contemporary Issues in Technology and Teacher Education*, 13(1). Retrieved from <http://www.citejournal.org/vol13/iss1/science/article1.cfm>
- Madden, L.**, Bedward, J., Wiebe, E., & Benitez-Nelson, C.R. (2012). Lessons Learned in Summer Camp: A Case Study of the Learning Paths of Three Campers. *Electronic Journal of Science Education*.
- Madden, L.** (2012). Cell Phones Transform a Science Methods Course. *The Educational Forum* 76(4), 442-446.
- Minogue, J., **Madden, L.**, Bedward, J. Wiebe, E.N., & Carter, M.C. (2010). The Cross-case Analyses of Elementary Students' Engagement in the Strands of Science Proficiency. *Journal of Science Teacher Education*, 21(5), 559-587.
- Minogue, J. Wiebe, E., **Madden, L.**, Bedward, J. & Carter, M. (2010). The intersection of science notebooks, graphics, and inquiry. *Science and Children*, 48(3), 52-55.
- Benitez-Nelson, C.R., **L.O. Madden**, R.M. Styles, R.C. Thunell, Y. Astor (2007). Inorganic and organic sinking particulate phosphorus fluxes across the oxic/anoxic water column of Cariaco Basin, Venezuela. *Marine Chemistry*. 105, 90-100.
- O'Neill, L.P.**, C.R. Benitez-Nelson, R.M. Styles, E. Tappa, and R.C. Thunell (2005). Diagenetic effects on particulate phosphorus samples collected using formalin poisoned sediment traps. *Limnology and Oceanography Methods*, 3, 308-317.
- Benitez-Nelson, C.R., **L.P. O'Neill**, L. Kolowith, P. Pellecia, and R.C. Thunell (2004). Phosphonates and particulate organic phosphorus cycling in an anoxic marine basin. *Limnology and Oceanography*, 49 (5), 1593-1604.

Invited Book Reviews

- Madden, L.** & Figueroa, M. (2020). Review of Nanoscience Research Modules for Pre-Service STEM Teachers: Core Nanoscience Concepts as a Vehicle in STEM Education. *Teachers College Record*. Retrieved from: <https://www.tcrecord.org/Content.asp?ContentID=23208>

Book Chapters

- Kim-Bossard, M., **Madden, L.**, Carroll, S.Z., Ammentorp, L., & Tallman, T. (2022). Caring and Compassion for Student Teachers after COVID. In: Shoffner, M. & Webb, A. (eds) *Care After COVID: Reconstructing Understandings of Care in Teacher Education*. Routledge.
- Madden L.**, Beyers J.E.R., Stanton N. (2020) Future Elementary Teachers' Perspectives on the Importance of STEM. In: Akerson V.L., Buck G.A. (eds) *Critical Questions in STEM Education*. Contemporary Trends and Issues in Science Education, vol 51. Springer, Cham. https://doi.org/10.1007/978-3-030-57646-2_12
- Kim-Bossard, M., **Madden, L.**, Ammentorp, L., & Dell'Angelo, T. (2019). Retelling of the Magic Spring: A preschool perspective on water, greed, and the human-nature relationship. In R. Aghasaleh (Ed.) *Children and Mother Nature: Storytelling for a Globalized Environmental Pedagogy*. Rotterdam: Sense Publishers.
- Bellino, M., Richards, A.J., Chessler, M., **Madden, L.**, & Magee, N. (2019). Recruiting Future Physics Teachers through a Field-based Summer Enrichment Program. In C. Rinke & L. Mawhinney (Eds.) *Opportunities and Challenges in Teacher Recruitment and Retention: Teachers Voices across the Pipeline*. Charlotte, NC: Information Age Publishing.
- Madden, L.** (2019). A Journey of Transformation and Perspective. In Kemp, A. (Ed.). *Dignity of the Calling: Educators Share the Beginnings of Their Journeys*, Charlotte, NC: Information Age Publishing.

- Madden, L.,** Schuler, A.K., Friedman, M., Koehler, D., & Panday, S. (2018). Looking Through the Window to Help Teach Others: Science Stories of Three Young Women. In M. Koomen, S. Kahn, C. Atchison, & T. Wild (Eds.), *Toward Inclusion of All Learners Through Science Teacher Education*. Rotterdam: Sense Publishers.
- Madden, L.** & Turner, J. (2018). Enhancing Gifted Early Elementary Students' Learning Experiences through Engineering Design: One Teacher's Experience. In Taber, K., Sumida, M., & McClure, L. (Eds.), *Teaching Gifted Learners in STEM Subjects: Developing talent in science, technology, engineering and mathematics*. London: Routledge.
- Dell'Angelo, T., **Madden, L.,** & Hudson, M. (2017). Telling Stories after School: Using Photography to Build Literacy and Community. In Dell'Angelo, T., Ammentorp, L., & Madden, L. (Eds.) *Using Photography and Other Arts-based Methods with English Language Learners: Guidance, Resources and Activities for K-12 Educators*. Lanham, MD: Rowman and Littlefield.
- Madden, L.** & Dell'Armo, K. (2015). Scientific Creativity within the Rules: Suggestions for Teaching Science to Children with Autism. In Demetrikopoulos, M. & Pecore, J. (Eds.), *Interplay of Creativity and Giftedness in Science* (pp.267-280). Rotterdam: Sense Publishers.

Technical Reports and White Papers

- Madden, L.** & Wang, M. (2022). Establishing Validity and Reliability: New Jersey Lesson Plan Rubric for the SubjectToClimate Website. (SubjectToClimate). Dover, DE. Retrieved from: <https://subjecttoclimate.org/storage/resources/whitepapers/0d5a1987-c682-4805-96ce-a8066df3bb2d.pdf>.
- Madden, L.** (2022). Report on K-12 Climate Change Education Needs in New Jersey. (New Jersey School Boards Association). Trenton, NJ. Retrieved from: <https://www.njsba.org/wp-content/uploads/2022/02/climate-change-ed-online-2-2.pdf>
- Pasley, J.P., **Madden, L.O.** (2007). Electronic Mentoring for Student Success - Year Five Evaluation Report. (Horizon Research, Inc.). Chapel Hill, NC.
- Pasley, J.P., **Madden, L.P.,** Ford, B. (2006). Electronic Mentoring for Student Success - Year Four Evaluation Report Addendum. (Horizon Research, Inc.). Chapel Hill, NC.
- Cohen, K.W., **Madden, L.O.,** Banilower, E.R. (2006). Annual Evaluation Report for Linking Science and Mathematics Assessment to Standards. (Horizon Research, Inc.). Chapel Hill, NC.

SELECTED MEDIA COVERAGE

- [Climate Change Education](#). Scripps National News. October 28, 2022.
- [How to teach about Natural Disasters with Care](#). Education Week. October, 4, 2022.
- [Climate change must now be taught to NJ students](#). What will the new curriculum look like? NJ.com. September 19, 2022.
- [New K-12 curriculum covers climate change, first in nation to do so](#). NJ Spotlight News. September 4, 2022.
- [Inside New Jersey's Climate Change Education Breakthrough](#). Talking with Green Teachers Podcast. April 16, 2022.
- [Climate change will be on NJ school lesson plans in September. How teachers are preparing?](#) Asbury Park Press. March 1, 2022.

Editorials, Blog Posts, & Other Non-Refereed Publications

- Madden, L.** (2022). Climate Change Must be Taught to Even Our Youngest Students. *The Star Ledger and NJ.com*. September 30, 2022. Retrieved from: <https://www.nj.com/opinion/2022/09/climate-change-must-be-taught-to-even-our-youngest-students-opinion.html>.
- Madden, L.** (2018). But It's Only a Theory! A Case for Great Science Teaching in Elementary School. *KDP Blog*. Retrieved from: <https://blog.kdp.org/2018/09/06/but-its-only-a-theory-a-case-for-great-science-teaching-in-elementary-school/>.
- Madden, L.** (2016). Preparing Teachers for Next Generation Science Standards. *Education Week*. Retrieved from: <http://www.edweek.org/ew/articles/2016/07/05/preparing-teachers-for-next-generation-science-standards.html>

Thesis & Dissertation

- Madden, L.** (2011). Examining Elementary Teachers' Identities through Analysis of Student Science Notebooks. Unpublished Ph.D. Dissertation, North Carolina State University, Raleigh, NC, 190 pp.
- O'Neill, L.P.** (2004). Organic and Inorganic Phosphorus Fractionation across an oxic/anoxic interface. Unpublished M.S. thesis, University of South Carolina, Columbia, SC 101 pp.

PRESENTATIONS

- Madden, L.** Taylor, G. (September, 2022). Tools for Climate and Marine Science in the Classroom. Presented at the Alliance for New Jersey Environmental Education (ANJEE). Hillsborough, NJ.
- Madden, L.** Taylor, G., Ammentorp, L., & Magee, N. (March, 2022). Marine Science, Climate Change, and the NGSS: Lessons Learned from an Initial Round of PD. Presented at the Annual Meeting of the National Association for Research in Science Teaching (NARST). Vancouver, BC, Canada.
- Madden, L.,** Ammentorp, L., Magee, N., & Taylor, G. (January, 2022). K-8 Climate Change and Marine Science Professional Development: Successes and Plans for Future Modification. Presented at the Annual Meeting of the Association for Science Teacher Education (ASTE). Greenville, SC.
- Madden, L.,** Ammentorp, L., Taylor, G., Magee, N. (September, 2021). Marine Science, Climate Change, and the NGSS. Presented at the Alliance for New Jersey Environmental Education (ANJEE), Hillsborough, NJ.
- Madden, L.,** Ammentorp, L., Magee, N. (2021). Climate Change, Marine Science and the NGSS: Planning Professional Development. Presented at the Annual Meeting of the Association for Science Teacher Education. (ASTE) Remote. January 2021.
- Madden, L.,** & Ammentorp, L. (2020, October). Climate Change, Marine Science, & the NGSS PD: Planning for K-8. Presented at the Research Symposium for the North American Association for Environmental Education. Remote. October 2020.
- Madden, L.,** Eriksson, S., Magee, N. Vaughan, D. & Chessler, M. (2020, January). Choosing to Teach Physics: Influencing Factors. Presented at the annual meeting of the Association for Science Teacher Education (ASTE), San Antonio, TX.
- Madden, L.,** Magee, N., & Ammentorp, L. (2019, November). Climate Change and Science Teaching K-8. Presented at the 2019 Rutgers Climate Symposium, New Brunswick, NJ.
- Madden, L.** & Ammentorp, L. (2019, October). Studying eSTEAM: How Arts Interaction Sparks Engagement in Environmental Education in pK-8 classrooms. Presented at the annual meeting of the North American Association for Environmental Education (NAAEE). Lexington, KY.
- Madden, L.** (2019, September). Turning Trash to Treasure. Presented at the Annual Fall Conference of the Association for New Jersey Environmental Education (ANJEE), Hillsborough, NJ.
- Lee, T., Jones, M.G., Chesnutt, K., Carrier, S., **Madden, L.,** Cayton, E., & Ennes, M. (2019, August). What you wear can make a difference in elementary students' perceptions of STEM careers. Paper presented at the European Science Education Research Association, Bologna, Italy.
- Madden, L.,** Eriksson, S., Magee, N., Richards, A.J., Bellino, M., & Chessler, M. (2019, March). College Faculty and Teacher Candidates' Perspectives on the Choice to Teach Physics. Presented at the Annual Meeting of the National Association for Research in Science Teaching (NARST), Baltimore, MD.
- Madden, L.** Schuler, A.K., & Carroll, S. (March, 2019). Lessons about Science Learning and Advice from Two Groups of College Students. Presented at the Annual Meeting of the National Association for Research in Science Teaching (NARST), Baltimore, MD.
- Madden, L.,** Schuler, A.K., & Carroll, S. (April, 2019). Conversations about Science Learning: Lessons and Advice from Two Groups of College Students. Presented at Annual Meeting of the American Educational Research Association (AERA), Toronto, ON.
- Madden, L.,** Richards, A.J., Magee, N., Bellino, M., & Chessler, M. (April 2018). Recruiting Physics Teachers through a Field-based Summer Enrichment Program. Presented at the 2018 Northeast Regional Noyce Conference. Brooklyn, NY.
- Madden, L.** & DiVanno, R. (April 2018). Understanding Elementary Teachers' Views on Environmental Sustainability Education: A Multi-Case Study. Presented at the Annual Meeting of the American Educational Research Association (AERA), New York, NY.

- Madden, L.,** Schuler, A., Friedman, M., Koehler, D., & Panday, S. (April 2018). Looking Through the Window to Help Teach Others: Science Stories of Three Young Women. Presented at Annual Meeting of the American Educational Research Association (AERA), New York, NY.
- Madden, L. &** DiVanno, R. (March 2018). Elementary Teachers' Views on Environmental Sustainability Education: Understandings from A Multi-Case Study. Presented at the Annual Meeting of the National Association for Research in Science Teaching (NARST), Atlanta, GA.
- Madden, L.,** Bellino, M., Richards, A., Magee, N., & Chessler, M. (March 2018). Recruiting Future Physics Teachers through a Field-based Summer Enrichment Program. Presented at the Annual Meeting of the National Association for Research in Science Teaching (NARST), Atlanta, GA.
- Jones, M.G., Lee, T.D., Chesnutt, K., Carrier, S., **Madden, L.** Ennes, M., Bellino, M., Cayton, E., Phillips, L., & Huff, P. (March 2018). Enclothed Cognition: The Effects of Lab Coats on Students' Science Identities and Career Aspirations. Presented at the Annual Meeting of the National Association for Research in Science Teaching (NARST), Atlanta, GA.
- Jones, M.G., Lee, T.D., Cayton, E., **Madden, L.,** Carrier, S.J., Chesnutt, K., Ennes, M., & Huff, P. (March 2018). Science Identity, Enclothed Cognition and Self Efficacy: Kids in White Lab Coats. Presented at the Annual Meeting of the National Association for Research in Science Teaching (NARST), Atlanta, GA.
- Madden, L.,** Schuler, A., Friedman, M., Koehler, D., & Panday, S. (April 2017). Learning from Three Young Women's Stories: Recommendations for Teaching Science to Individuals with Disabilities. Presented at the Annual Meeting of the National Association for Research in Science Teaching (NARST), San Antonio, TX.
- Madden, L.,** Schuler, A., Friedman, M., Koehler, D., & Panday, S. (April 2017). Looking Through the Window to Help Teach Others: Science Stories of Three Young Women. Presented at Annual Meeting of the American Educational Research Association (AERA), San Antonio, TX.
- Passe, J. & **Madden, L.** (February, 2017) Teacher educators working with community activists to promote environmental sustainability. Presentation to the Annual Meeting of the American Association for Colleges of Teacher Education, Tampa, FL.
- Madden, L.** (November, 2016). One Teacher's Trash is an Open Door to Understanding Form and Function. Presented at the TCNJ School of Education Board of Student Leaders STEM conference. Ewing, NJ.
- Drewes, D. & **Madden, L.** (November, 2016). Applying Principles of Environmental and Sustainability Education Across Disciplines, K-5. Presented at the Annual Meeting of the New Jersey Education Association (NJEA), Atlantic City, NJ.
- Madden, L.** (October, 2016). Assessing What's Already There: Re-working "Tried and True" Lessons to address the NGSS Presented at the Annual New Jersey Science Teachers Convention, hosted by the New Jersey Science Teachers Association (NJSTA), Princeton, NJ.
- Madden, L., &** Liang, J. (April, 2016). Young Children's Perspectives on Nature and Trees. Presentation at the Annual Meeting of the American Educational Research Association (AERA), Washington, DC.
- Ammertorp, L., & **Madden, L.** (April, 2016). Preparing Preservice Teachers for the Challenges of Workplace Collaboration. Presented at Annual Meeting of the American Educational Research Association (AERA), Washington, DC.
- Madden, L. &** Dell' Angelo, T. (April, 2016). Developing Ecoliteracy through Photojournals in a Blended Environmental Science Course. Submitted for presentation at the National Association for Research in Science Teaching (NARST), Baltimore, MD.
- Madden, L. &** Liang, J. (April, 2016). Using Drawings and Discussion to Learn Young Children's Perspectives on Nature. Submitted for presentation at the National Association for Research in Science Teaching (NARST), Baltimore, MD.
- Madden, L.** (October 2015). Environmental Sustainability Education for Preservice Teachers: Lessons Learned in One Year. Presented at the Annual Meeting of the North American Association for Environmental Education (NAAEE).
- Madden, L.,** Beyers, J., & O'Brien, S. (April, 2015). The Importance of STEM Education in the Elementary Grades: Learning from Preservice Teachers' Perspectives. Presented at the Annual Meeting of the National Association for Research in Science Teaching (NARST), Chicago, IL.

- Madden, L., & Dell'Angelo, T.** (April, 2015). Exploring Preservice Teachers' Views of Environmental Sustainability through Photojournals. Presented at the Annual Meeting of the American Educational Research Association (AERA), Chicago, IL.
- Madden, L.** (January, 2015). Environmental Sustainability for Preservice Educators: What They Need to Know. Presented at the Annual Meeting of the Association of New Jersey Environmental Educators (ANJEE), West Windsor, NJ.
- Madden, L., Peele, A., Watson, H., Turner, J., Hornberger, C.** (October 2014). Science & Literacy Integration. Presented at the Annual New Jersey Science Teachers Convention, hosted by the New Jersey Science Teachers Association (NJSTA), Princeton, NJ.
- Madden, L.** (October 2014). Environmental Sustainability for Preservice Educators: What They Need to Know. Presented at the Annual Meeting of the North American Association for Environmental Education (NAAEE), Ottawa, Ontario, Canada.
- Madden, L., Jones, M.G., & Childers, G.** (April 2014). New Pedagogical Tools- New Interaction Patterns: Science Teacher Interactions in Distance Education for Professional Development. Presented at the Annual Meeting of the American Educational Research Association (AERA), Philadelphia, PA.
- Ammentorp, L., & Madden, L.** (April 2014). Learning to Collaborate: Preservice Teachers' Perspectives on Partnered Field Experiences. Presented at the Annual Meeting of the American Educational Research Association (AERA), Philadelphia, PA.
- Madden, L., Jones, M.G., & Childers, G.** (April 2014). Speak, Chat, or Write: Differential Interactions in Science Teacher Professional Development With Distance Education Tools. Presented at the Annual Meeting of the National Association for Research in Science Teaching (NARST), Pittsburgh, PA.
- Madden, L., Jones, M.G., & Childers, G.** (January 2014). Science teacher graduate education: Modes of communication within asynchronous and synchronous communication platforms. Presented at the Annual Meeting of the Association of Science Teacher Education (ASTE), San Antonio, TX
- Madden, L.** (November 2013). Apple Chemistry. Presented at the Annual New Jersey Science Teachers Convention, hosted by the New Jersey Science Teachers Association (NJSTA), Princeton NJ.
- Madden, L., Jones, M.G., & Blanchard, M.G.** (April 2013). Photonarratives in an Online Master's Course: A Viable Way to Enhance Teacher Reflection and Build Community? To be presented at the Annual meeting of the National Association for Research in Science Teaching (NARST), Rio Grande, Puerto Rico.
- Madden, L., Goldberg, R., & Gooditis, L.,** (October 2012). Fostering Science Educator Collaborations. Presented at the Annual New Jersey Science Teachers Convention, hosted by the New Jersey Science Teachers Association (NJSTA), Princeton NJ.
- Mosera, M., & Madden, L.** (October, 2012). Can you hear me now: An interactive ear anatomy and hearing museum for your classroom. Presented at the Annual New Jersey Science Teachers Convention, hosted by the New Jersey Science Teachers Association (NJSTA), Princeton NJ.
- Madden, L., Jones, M.G., & Blanchard, M.G.** (March, 2012). Photonarratives in an online master's course: A viable way to enhance teacher reflection and build community? Poster presented at the Society of Information Technology in Education (SITE) International Conference, Austin, TX.
- Madden, L. Jones, M.G., & Blanchard, M.G.** (January, 2012). Photonarratives in an online master's course: A viable way to enhance teacher reflection and build community? Presented at the Annual Meeting of the Association of Science Teacher Education (ASTE), Clearwater Beach, Florida.
- Madden, L. Jones, M.G., & Passannate, L.** (October, 2011). Creating Photonarratives of Science Stories: A picture is worth 1000 words! Present at the Annual Convention of the New Jersey Science Teachers Association (NJSTA), Somerset, NJ.
- Madden, L. Wiebe, E.N., Bedward, J.C., Minogue, J.M., & Carter, M.C.** (April, 2011). Teacher Identities of Three Second Grade Teachers: A Case Study from the Students' Perspective. Presented at the Annual Meeting of the American Educational Research Association (AERA), New Orleans, LA.
- Madden, L., Bedward, J.C., Wiebe, E.N., & Benitez-Nelson, C.R.** (April, 2011). Lessons Learned in Summer Camp: Learning Paths of Three Campers. Presented at the Annual meeting of the National Association for Research in Science Teaching (NARST), Orlando, FL.

- Madden, L.**, Wiebe, E.N., Bedward, J.C., Minogue, J.M., & Carter, M.C. (January, 2011). Student Perspectives on Teacher Identity: A Case Study of Three Second Grade Teachers. Presented at the Annual Meeting of the Association of Science Teacher Education (ASTE), Minneapolis, MN.
- Madden, L.**, & Bedward, J. (November, 2010). GEES: Online PD tools for enhancing elementary science with graphics. Presented at the Annual Meeting of the North Carolina Science Teachers Association (NCSTA), Greensboro, NC.
- Madden, L.**, & Whittington, D. (October, 2010). Evaluating Middle Schoolers' Marine Science Content Knowledge After a Science Summer Enrichment Program Coupled with a Year-Long After School Science Mentoring. Presented at the Annual Meeting of the Mid-Atlantic Marine Educator's Association (MAMEA), Wilmington, NC.
- Wiebe, E., Bedward, J., Minogue, J., Carter, M., & **Madden, L.** (June, 2010). Modeling in support of engineering design process: Experiences in the elementary classroom. Presented at the American Society of Engineering Education Annual Conference and Exposition, Louisville, KY.
- Bedward, J., Minogue, J., Wiebe, E., **Madden, L.**, & Carter, M. (March, 2010). Reasoning about invisible forces: The use of graphics and written text to reveal elementary student sense making. Presented at the National Association of Research in Science Teaching (NARST) International Conference, Philadelphia, PA.
- Madden, L.**, Wiebe, E., Bedward, J., Minogue, J., & Carter, M. (March, 2010). Elementary Science Teacher Identity through Science Notebooks: A Case Study of Three Exemplar Teachers. Presented at the Annual meeting of the National Association for Research in Science Teaching (NARST), Philadelphia, PA.
- Wiebe, E., Minogue, J., Carter, M., Bedward, J., & **Madden, L.** (March, 2010). Administrative symposium: Representational Reasoning in the Teaching and Learning of Science. Presented at the National Association of Research in Science Teaching (NARST) International Conference, Philadelphia, PA.
- Madden, L.**, Wiebe, E., Bedward, J., Minogue, J., & Carter, M. (January, 2010). A Case Study of Three Elementary Science Teachers' Use of Science Notebooks After Professional Development. Presented at the Annual meeting of the Association of Science Teacher Education (ASTE), Sacramento, CA
- Minogue, J., Bedward, J., Wiebe, E., **Madden, L.**, & Carter, M. (January, 2010). Concrete experiences and abstract thought: The importance of student-generated graphics. Presented at the Association for Science Teacher Educators (ASTE) International Conference, Sacramento, CA.
- Madden, L.**, Bedward, J. Wiebe, E., & Benitez-Nelson, C. (October, 2009). Ocean Explorers: Lessons Learned from a Week at Science Camp. Presented at the Annual meeting of the Mid Atlantic Marine Educators Association, Lewes, DE.
- Wiebe, E., **Madden, L.**, Bedward, J., Minogue, J., & Carter, M. (April, 2009). Examining Science Inquiry Practices in the Elementary Classroom through Science Notebooks. Presented at the Annual meeting of the National Association for Research in Science Teaching (NARST), Garden Grove, CA.
- Wiebe, E., Bedward, J., **Madden, L.**, Minogue, J., & Carter, M. (April 2009). Graphic Representations in Science Notebooks: A Vehicle for Understanding Science Inquiry in the Elementary Classroom. Presented at the Annual meeting of the American Educational Research Association (AERA), San Diego, CA.
- Minogue, J., Bedward, J.C., **Madden, L.P.**, Wiebe, E.N., Carter, M.C. (January 2009). The Cross-case Analyses of Elementary Students' Engagement in the Strands of Science Proficiency. Presented at The Association for Science Teacher Education International Conference, Hartford, CT.
- Wiebe, E. N., Bedward, J., **Madden, L.**, Minogue, J., & Carter, M. (January, 2009). Graphicacy and its role in elementary science and technological problem solving investigations: Implications for teacher professional development. Presented at the ASEE-EDGD Midyear Meeting, Berkeley, CA.
- Madden, L.P.**, Wiebe, E.N., Minogue, J., Bedward, J.C., and Carter, M.C. (October 2008). Creating Classroom Observation Protocols for Elementary Schools Using Graphically-Enhanced Science Notebooks. Presented at the Southeastern Association for Science Teacher Education Conference 2008, Columbia, SC.
- Wiebe, E. N., **Madden, L. P.**, Bedward, J. C., Carter, M., & Minogue, J. (June, 2008). Improving Early Spatial Intelligence Through Science Notebook Graphic Production: Effective Elementary Classroom Practices. Presented at the Spatial Intelligence Symposium, Evanston, IL.
- O'Neill, L.P.**, Benitez-Nelson, C.R., Styles, L.M, (June, 2004). Sediment trap organic/inorganic phosphorus composition across an oxic/anoxic interface. Presented at the American Society of Limnology and Oceanography Summer Meeting, Savannah, GA.

O'Neill, L.P., Benitez-Nelson, C.R., (August, 2003). Phosphorus Speciation across an Oxic/Anoxic Interface. Presented at the Gordon Research Conference on Chemical Oceanography 2003, Tilton, NH.

TEACHING EXPERIENCE

Higher Education Teaching Experience

- 2011- present The College of New Jersey
Professor, Elementary and Early Childhood Education (Aug. 2021-present)
Associate Professor, Elementary and Early Childhood (Aug. 2016-July 2021)
Assistant Professor, Elementary and Early Childhood Education (Aug. 2011-July 2016)
 MST 202 Methods of Teaching Health, Science, and Technology (undergraduate preservice teachers)
 ELEM 521 Methods of Teaching Science in the Inclusion Classroom (graduate preservice teachers)
 ELE/ECE 498 Inquiry into Learning (senior capstone),
 MST 303 Interdisciplinary Science for Educators: Science Outside of School
 ELEM 690 Inquiry into Learning (graduate capstone)
 MST 203 Environmental Science for Educators
 ESE 100 Environmental Sustainability in Education
 SCED 694 Internship I (graduate course in secondary education)
 ELE 301 Integrating and Differentiating Instruction (junior field experience)
 ELED/SCED 663 Advanced Trends in Education (global graduate course in Mallorca, Spain)
 Developed a 5-course minor in Environmental Sustainability Education
 Developed a 4-course graduate certificate in Environmental Sustainability Education
- 2009-2011 North Carolina State University
Graduate Assistant
 Taught: Secondary Science Teaching Methods, Advanced Methods in Science Education (graduate),
 and Introduction to Research in Science Education (graduate)
- 2002-2004 University of South Carolina
Graduate Instructional Assistant
 Taught: Introduction to Chemical and Physical Oceanography Lab and Evolution of the Marine
 Environment Lab

K-12 Teaching Experience

- 2004-2006 Richland School District One, Columbia, SC
Seventh-Grade Science Teacher, Hand Middle School
Science and Mathematics After School Teacher, Hand Middle School

Informal Teaching Experience

- Fall 2011 *Program Coordinator, PJ Hill-TCNJ Science Partners, PJ Hill School, Trenton, NJ*
 Spring 2011 *Nanodays Project Assistant, North Carolina State University, Raleigh, NC*
 Summer 2009 *Ocean Explorers Camp Director, Parkwood United Methodist Church, Durham, NC*
 Summer 2004 *Mathematics and Science Tutor, Fast Forward Community Technology Center, Columbia, SC*
 Spring 2004 *Teacher Quality Collaborative Scientist, Horrell Hill Elementary School, Hopkins, SC*
 2002-2004 *Science Quest Team Leader, Fast Forward CTC, Hand Middle School, Columbia SC*

ACADEMIC AWARDS AND HONORS

- Jan. 2021 NJ STEM Pathways iCAN STEM Role Model: January 2021
 2020-21 Association for Science Teacher Education (ASTE) Outstanding Science Teacher Educator of the
 Year
 2019 Invited Speaker, *Charting the Course for the Barnegat Bay*, Ocean County, NJ
 2019 Invited Speaker, Hunterdon, Somerset, Mercer County STEM EcoSystems Fall Meeting

2019-20	Sabbatical Leave, Full Academic Year
2019	Finalist, Gittenstein-Hart Sabbatical Prize
2018-19	TCNJ School of Education Outstanding Faculty Member of the Year Award
2019	Invited Participant, NSF Out of Field Science Teaching Conference
2017-19	Support of Scholarly Activity (SOSA) Fellowship Awarded, The College of New Jersey
2017	Invited Panelist at the AAAS/NSF STEM Teacher Education Conference, Montclair, NJ
2016	Selected to present at the first annual TCNJ Pelson Lecture
2015	Selected as the TCNJ Commencement Speaker by the Graduating Class of 2015
2014	Invited workshop speaker at the Kappa Delta Pi Literacy Across the Curriculum Event
2014	Invited keynote speaker at the Kappa Delta Pi Conference for Aspiring Teachers
2014	AERA Science Teaching and Learning SIG Early Career Award
2013-2015	Support of Scholarly Activity (SOSA) Fellowship Awarded, The College of New Jersey
2012	MUSE Summer Research Fellowship Awarded, The College of New Jersey
2011	Elected department representative at the NCSU Graduate Research Symposium
2011	AERA Science Teaching and Learning SIG Travel Grant
2010	Paul Standish Scholarship in Marine Education, Mid-Atlantic Marine Educators Association
2009-2010	John and Nell Penick Fellowship in Science Education, North Carolina State University
Fall 2009	North Carolina State University Graduate Student Association Travel Grant
2009-present	Phi Kappa Psi Honor Society, North Carolina State University
Summer 2003	University of South Carolina Research and Productive Scholarship Grant
2003-2004	Elected President of the Marine Science Graduate Society, University of South Carolina

SERVICE***National/International***

2018-present	Reviewer, NSTA Press
2017-present	Reviewer, Journal of Research in Science Teaching
2014-present	NJ Regional Editor, Green Teacher Magazine
2014- present	Reviewer, Environmental Education Research
2013	State of NJ reviewer on the adoption of the Next Generation Science Standards
2013-present	Reviewer, Science Education
2012-present	Reviewer, Science and Children
2011- present	Reviewer, International Journal of Science Education
2009- present	Conference Proposal Reviewer, National Association for Research in Science Teaching
2009- present	Conference Proposal Reviewer, Association for Science Teacher Education

Local

2020-present	TCNJ Environmental Sustainability Education Council (Co-chair AY 2021-22, 2022-23)
2020-present	TCNJ Institutional Review Board (IRB)
Fall 2018	TCNJ Center for Future Educators Executive Director Search Committee
Fall 2018	TCNJ Faculty Senate (1 semester replacement for Anne Peel)
2016-2017	TCNJ Elementary and Early Childhood Social Studies Education Search Committee (Chair)
2016-present	TCNJ Department of Integrative Science Technology Engineering and Mathematics Promotions and Reappointment Committee- external member
2015-2018	TCNJ Sabbaticals Council (Vice Chair- 2016-17)
2014-2018	TCNJ Information Technology Planning Council
2014	TCNJ School of Science Physics Education Research Search Committee
2014-present	TCNJ School of Education Committee to Develop a Sustainability Education Minor- Chair
2014, 2017	TCNJ EECE Chair Nomination Committee
2012-present	TCNJ School of Education Undergraduate Research Committee

2012-present	TCNJ 21 st Century Educators Committee—Co-Chair 2013-14, 2014-15
2012-present	TCNJ Lab Safety Committee
2011- present	TCNJ College of Education Awards Committee
2011- present	Coordinator, PJ Hill & TCNJ Partners
2011	Science Volunteer, Nanodays, NC State University
2010	Presenter at Family Math and Science Night, Stough Elementary School, Raleigh, NC
2007-2010	Mini-grant Proposal Reviewer, Mid-Atlantic Marine Educators Association
2008-2010	Science Fair Judge, Fred A. Olds Elementary School, Raleigh, NC.
2008	Assisted in an activity at <i>Maze Days</i> (Activity Camp for Visually Impaired Students), UNC Chapel Hill
2008	Volunteer, Boomerang Alternative Suspension Program, Chapel Hill YMCA
2005	Hurricane Katrina Relief Effort, 7 th Grade Coordinator, Hand Middle School
2004-2006	Volunteer Tutor, Fast Forward Community Technology Center
2002-2004	Marine Science Graduate Society, University of South Carolina (Seminar Coordinator, 2002-2003; President, 2003-2004)

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

2014-present	American Association of Colleges for Teacher Education
2013-present	North American Association for Environmental Education
2011-present	Association for Teacher Education
2011-present	New Jersey Science Teachers Association
2009-present	European Science Education Research Association
2009-present	School Science and Mathematics Society
2008-present	American Educational Research Association
2008-present	National Association for Research in Science Teaching
2008-present	Association for Science Teacher Education
2007-present	National Science Teachers Association
2007-present	National Marine Educators Association
2007-present	Mid-Atlantic Marine Educators Association
2004-present	National Education Association
2002-2005	American Society of Limnology and Oceanography
2002-2005	American Geophysical Union
2002-2005	The Oceanography Society
2002-2004	Marine Science Graduate Society, University of South Carolina
2000-2002	Earth Science Club, University of New Hampshire