Matthew J. Kloser

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EDUCATIONAL BACKGROUND

ORCID: 0000-0002-4902-9854

2011 – 2012	Post-Doctoral Scholar Stanford University, Center to Support Excellence in Teaching Pam Grossman, Advisor
2011	Ph.D., Science Education Stanford University, Stanford, CA
2010	M.S., Biology Stanford University, Stanford, CA
2004	M.Ed. University of Notre Dame, Notre Dame, IN
2002	B.A., History and Pre-Professional (Pre-Medicine) Studies University of Notre Dame, Notre Dame, IN

PROFESSIONAL APPOINTMENTS

2024 – Present	Hackett Family Director Institute for Educational Initiatives, University of Notre Dame
2024 – Present	Editor, *Journal of Research in Science Teaching* Term beginning January 1, 2025; Co-Editors, Edna Tan; Dana Vedder-Weiss
2018 – Present	Associate Professor of the Practice Institute for Educational Initiatives, University of Notre Dame
2012 – Present	Founding Director, Notre Dame Center for STEM Education Institute for Educational Initiatives, University of Notre Dame
2012 – 2018	Assistant Professor of the Practice Institute for Educational Initiatives, University of Notre Dame
2004 – 2007	Assistant Program Director, ACE M.Ed. Notre Dame, IN

2002 – 2007	High School Science and Mathematics Teacher Birmingham, AL; South Bend, IN

RESEARCH PROJECTS & GRANTS

2024 - Present	PI: Empowering Women and Girls to Pursue STEM: Making STEM a Force for Good Clare Luce Foundation $100,000.
2023 – Present	Co-PI: Connecting Volunteer Tutors to Cognitive Science Americorps $640,000.
2020 – 2024	Co-PI: *SPIRAL: Supporting Professional Inquiry and Re-Aligning Learning through a structured e-portfolio system.* National Science Foundation (DRK-12), $1,500,000 Supplement of $92,000 awarded in 2024
2022 – 2024	PI: *Exploring the Relationship between Classroom Factors and Teacher Value-Added Measures in High School Biology Classrooms.* Notre Dame Faculty Research Initiation Grant $5,500
2022 – 2024	PI: *Translational Research Project in Faith-Informed STEM Education* Notre Dame Flip the Script Planning Grant $14,991
2014 – 2024	PI: *Collaboration to Enhance and Refine STEM Teaching (CREST)* Asante Foundation, $100,000 (10 years of ~$10,000 annual grants)
2019 – 2023	PI: *Interruptions and Meaningful Multi-media Experiences Research in Science Education (IMMERSE)* Howard Hughes Medical Institute, $124,000
2016 – 2021	PI: *Investigating the Impact of Longitudinal Core Practice Professional Development on STEM Teaching Practice* Trustey Family/Sweeney Family Gifts, $2,500,000 (Program & Research)
2014 – 2018	Co-PI: *Measuring Next Generation Science Instruction Using Tablet-Based Teacher Portfolios* National Science Foundation (REAL), $1,800,000
2014 – 2017	PI: *Improving Teachers' Use of Data for Instructional Decisions: Using Assessment Portfolios for Professional Development* Spencer Foundation; $300,000
2014 – 2017	Research Faculty: *Investigating Core Teaching Practices Across Disciplines* Sponsor: Bill and Melinda Gates Family Foundation; $400,000

2013 – 2016 PI: *Investigating the Impact of an Organizational Change from a K-8 Catholic School to a STEM Academy*
Institute for Educational Initiatives Seed Grant; $5,000

2010 – 2011 PI: *Impact of Text Type on High School Biology Learning*
Stanford Dissertation Support Grant; $6,000

TEACHING & SUPERVISION

University Teaching Experience

University of Notre Dame

2024 – Present Clinical Seminar in Teaching & Supervised Teaching (EDU 65930 & EDU 65950 – Graduate Level)

2014 – Present Seminar in Educational Research, ESS Capstone (ESS 43640)

2012 – Present Science Education Policy, Values, and Practices (ESS 30623)

2006 – Present Science Methods I (EDU 60685/60785 - Graduate Level)

2006 – Present Assessment in Science Education (EDU 60795 - Graduate Level)

2022 – 2023 Science & Social Studies in Elem. Education (EDU 60192 – Graduate Level)

2004 – 2007 Introduction to Teaching (EDU 60020 - Graduate Level)

Teaching Assistantships

Stanford University

2008 – 2009 Curriculum & Instruction in Science (EDUC 267B&C)

2008 Communicating Science (GES 218)

Mentoring and Supervision of Teaching

University of Notre Dame

Fall 2024 ACE M.Ed. Clinical Seminar in Teaching & Supervised Teaching (See above courses. (Milwaukee community)

Stanford University

2011 – 2012 Beginning Teacher Support and Assessment (BTSA) Mentor

2007 – 2008 Field Supervisor for High School Science Teachers

PUBLICATIONS

Refereed Journals

Author Key: (*) undergraduates (@) graduate students (+) postdoctoral scholar

Kloser, M., Stroupe, D., McDonald, S., Johnson, H., Mawyer, K. (submitted). Collective development of practices and tools to support culturally and critically ambitious teacher education. *Educational Researcher.*

Ozulku. E.(+), Kloser, M. (submitted). Envisioning the future: Middle School students' perceptions of and motivations for STEM careers. *Career Development Quarterly*.

Kloser, M. & Szopiak, M. (2024). Faith and STEM education: A path to mutual elevation in Catholic schools. *Journal of Catholic Education*, *27*(1), 70-89.

Pynes, D., Kloser, M., Szopiak, M., Wagner, C., Wilsey, M., Svarovsky, G., Trinter, C. (2024). Bridging theory and practice: A framework for equity-focused STEM teacher leadership. *School Science and Mathematics.* https://doi.org/10.1111/ssm.12686.

Kloser, M., Floyd, C., Spang, C. (*), Rogers, M. (*), Ottone, N. (*), & Rice, M(*). (2023). Exploring high school biology students' discussions of multi-genre texts. *International Journal of Science Education*, 45(11), 895-922. 10.1080/09500693.2023.2177126.

Ozulku, E.(+) & Kloser, M. (2023). Middle school students' motivational dispositions and interest in STEM careers. *International Journal of Science Education.*1-21. 10.1080/09500693.2023.2234778.

Kloser, M., Borko, H., Wilsey, M.,(@) & Rafanelli, S.(@) (2022). Leveraging portfolios in professional development for middle school science teachers' assessment and data-use practice. *Science Education, 106*(4), 924-955.

Martinez, J-F., Kloser, M., Srinivasan, J.(@), Stecher, B., & Lavin, E.(@) (2022). Developing situated measures of science instruction through an innovative electronic portfolio app for mobile devices: Reliability, validity, and feasibility. *Educational and Psychological Measurement, 82*(6), 1180-1202.

Kloser, M., Martinez, J-F., Stecher, B., Edelman, A.,(@) Floyd, C., Srinivasan, J.(@) (2020). Interrogating practice or 'show-and-tell'?: Lessons learned from a digital-portfolio based PLC, *Journal of Science Teacher Education, 32*(2), 210-241. doi: 10.1080/1046560X.2020.1808267

Wilsey, M.,(@) Kloser, M., Borko, H., & Rafanelli, S.(@) (2020). Influences of professional development on middle school science teachers' mental models of assessment practice. *Educational Assessment, 25*(2), 136-158.

Kloser, M., Wilsey, M.,(@) Madkins, T.,(+) & Windschitil, M., (2019). Connecting the dots: Linking frameworks for facilitating discussion to novice teacher practice. *Teaching and Teacher Education,* 80, 115-127.

Kloser, M., Wilsey, M., Immonen, A.,(*) Navotas, A.,(*) & Twohy, K.(*) (2018). "We do STEM": Unsettled conceptions of STEM education in middle school STEM classrooms. *School Science and Mathematics, 118*(8), 335-347.

Kloser, M., Wilsey, M., Hopkins, D.,(@) Dallavis, J. W.,(@) Lavin, E., & Comuniello, M.(*) (2017). Dual identities: Organizational negotiation in STEM-focused Catholic schools. *Cultural Studies in Science Education*, *13,* 549-579.

Davis, E., Kloser, M., Windschitl, M., Wells, A., Carlson, J., & Marino, J-C. (2017). Teaching the practice of leading sense-making discussions in science: Using rehearsals, *Journal of Science Teacher Education*, *28*(3), 275-293.

Kloser, M., Borko, H., Martinez, F., Stecher, B., & Luskin, R.(@) (2017). Evidence of middle school science assessment practice from classroom-based portfolios, *Science Education, 101*(2), 209-231.

Kloser, M. (2016). Alternate text types and student outcomes: An experiment comparing traditional textbooks and more epistemologically considerate texts, *International Journal of Science Education, 38*(16), 2477-2499.

Kloser, M. & Wilsey, M. (2015). No blue ribbon: Reforming science fairs in middle and high school science education, *The Science Teacher, 82*(8).

Kloser, M. J. & Brownell, S. E. (2015). Toward a conceptual framework for measuring the effectiveness of course-based undergraduate research experiences in undergraduate biology. *Studies in Higher Education,* 1 – 20.

Kloser, M. (2014). Identifying a core set of science teaching practices: A Delphi expert panel approach. *Journal of Research in Science Teaching, 51*(9), 1185 – 1217.

Kloser, M. & Bofferding, L. (2014). Middle and high school students' conceptions of climate change mitigation and adaptation strategies. *Environmental Education Research.*

Brownell, S., Kloser, M., Fukami, T., & Shavelson, R. (2013). Context matters: Volunteer bias, small sample size, and the value of comparison groups in the assessment of research-based undergraduate introductory biology lab courses. *Journal of Microbiology and Biology Education, 14*(2), 176 – 182.

Kloser, M. (2013). Exploring high school biology students' engagement with more and less epistemologically considerate texts. *Journal of Research in Science Teaching, 50*(10), 1232 – 1257.

Kloser, M., Brownell, S., Fukami, T., & Shavelson, R. (2013). Effects of a research-based ecology lab course: A study of non-volunteer achievement, self-confidence and perception of lab course purpose. *Journal of College Science Teaching, 42*(3), 72 – 81.

Kloser, M. (2012). A place for the nature of biology in biology education. *Electronic Journal of Science Education*, *16*(2), 1-21.

Martinez, J. F., Borko, H., Stecher, B., Luskin, R., & Kloser, M. (2012). Measuring quality assessment in science classrooms through artifacts and self-report. *Educational Assessment, 17*(2-3), 107-131.

Kloser, M. & Brownell, S., Shavelson, R., & Fukami, T. (2012). Undergraduate biology lab courses: Comparing the impact of traditionally-based 'cookbook' and authentic research-based courses on student lab experiences, *Journal of College Science Teaching, 41*(4), 36-45.

Kloser, M., Brownell, S., Chiariello, N., & Fukami, T. (15 November 2011). *PLOS Community Pages.* Integrating teaching and research in undergraduate biology laboratory education, *9*(11).

Brown, B. & Kloser, M. (2009). Conceptual continuity and accessing everyday scientific understandings. *Cultural Studies in Science Education, 4,* 875-897.

Brown, B. & Kloser, M. (2009) A view of the tip of the iceberg: revisiting conceptual continuities and their implications for science teaching. *Cultural Studies in Science Education, 4, 921-928.*

Books, Book Chapters, and Invited Reports

Kloser, M. & Windschitl, M. (2020). Comparing pedagogies in two secondary methods courses. In *Preparing science teachers through practice-based teacher education,* D. Stroupe, K. Hammerness, S. McDonald (Eds.). Cambridge, MA: Harvard Education Press.

Kloser, M. & Windschitl, M., (2019). Scaffolds, tools, and disciplined improvisation. In *Sensemaking in Elementary Science,* E. Davis, C. Zembal-Saul, S. M. Kademian (Eds.). New York, NY: Routledge.

Kloser, M. (2018). *The nature of the teacher's role in supporting student investigations in middle and high school science classrooms: Creating and participating in a community of practice.* A report commissioned by the National Academies of Sciences, Engineering, and Medicine. Washington D.C.

Kloser, M. and Troy, S. (2018). *Reading nature: Engaging biology students with evidence from the living world.* Arlington, VA: NSTA Press.

Kelly-Peterson, M.,(@) Davis, Ghousseni, H., Kloser, M., and Monte-Sano, C. (2018). Rehearsals as approximations of practice. In P. Grossman and M. Franke (Eds), *Teaching core practices in teacher education.* Cambridge, MA: Harvard Education Press.

Rafanelli, S.,(@) Borko, H., Kloser, M., Wilsey, M.(@) (2018). From focusing on grades to exploring student thinking: A case study of change in assessment practice. In Fives, H. and Barnes, N. (Eds) *Data use*. London: Routledge.

Brown, B., Henderson, B., & Kloser, M. (2012). Bridging cultures: The role of culturally-relevant pedagogy, discursive identity, and conceptual continuities in the promotion of scientific literacy. In Moore, J. L. III and Lewis, C. W. (Eds.) *Urban school contexts for African American students: Crisis and prospects for improvement.* New York: Peter Lang Publishers.

Kloser, M. (2007). From Warsaw to Birmingham: The making of a teacher. In J. Watzke (Ed.), *Beyond Alternative Education*. Notre Dame, Indiana: ACE Press.

PRESENTATIONS/PROCEEDINGS

Kloser, M., Stroupe, D., McDonald, S., Johnson, H., Mawyer, K. (2025). A call for collective practices and tool development to support culturally ambitious science teaching. *A Paper for the Annual Meeting of the National Association of Research in Science Teaching.* Washington, D.C.

Martinez, J.F., Kloser, M., Szopiak, M., Saint Martin Guerra, M., Betzleberger, J., Huynh, R., (2025). Investigating cross-grade discussions around science teaching practice in vertical professional learning communities. *A Paper for the Annual Meeting of the National Association of Research in Science Teaching.* Washington, D.C.

Saint Martin Guerra, M., Martinez, J.F., Kloser, M., Szopiak, M., Betzleberger, J., Huynh, R., Roccio, R., (2025). *A Paper for the Annual Meeting of the American Educational Research Association.* Denver, CO.

Szopiak, M. & Kloser, M. (2025). Teaching Faith and Science: Shaping Learning for Mutual Elevation. *A Presentation for the Annual Meeting of the National Catholic Education Association.* Orlando, FL.

Wilsey, M., Szopiak, M., Pynes, D., Wagner, C., Kloser, M., Svarovsky, G. (2025). Shifts in middle school STEM teachers' conceptions of teacher leadership and equity. *A Paper for the Annual Meeting of the National Association of Research in Science Teaching.* Washington, D.C.

Kloser, M., Pynes, D., Szopiak, M., Wagner, C., Wilsey, M., Svarovsky, G. (2024). Toward a Framework for Equity-Focused STEM Teacher Leadership. *A Paper for the National Association of Research in Science Teaching.* Denver, CO.

Martinez, J. F., Kloser, M. et. al. (2024). "Spiraling" teacher learning: A novel PLC platform integrating multi-grade collaboration, classroom artifacts, and mobile technology. *A Paper for the Annual Meeting of the American Educational Research Association.* Philadelphia, PA.

Kloser, M., Szopiak, M., Wagner, C. (2023). Experimentally Comparing Student Interest in, Engagement in, and Comprehension of Expository and Narrative Biology Videos. *A Paper for the National Association of Research in Science Teaching.* Chicago, IL.

Wagner, C., Kloser, M., Szopiak, M. (2023). High School Students' Images of Science: A Decade into NGSS. *A Roundtable for the National Association of Research in Science Teaching.* Chicago, IL.

Oz., E.,(+) Kloser, M., Wagner, C., Ostdiek, L.,(*) Bullinger, S., (*) Malkani, A. (*) (2023). Qualitative Cases of Science Teaching Practice: Comparing Instruction Based on Value-Added Ratings. *A Paper for the Annual Meeting of the National Association of Research in Science Teaching.* Chicago, IL.

Kloser, M., Martinez, J-F, Szopiak, M., Saint Martin Guerra, M.,(@) Kovach, J., Betzleberger, J., Hyugnh, R., John, L-K., Ong, C. (2023). SPIRAL Project: Initial Findings of Vertical, Cross-Grade Professional Learning Community Discussions of Science Teaching Practice. *A Paper for the Annual Meeting of the American Educational Research Association.* Chicago, IL.

Oz., E.,(+) Kloser, M., Wagner, C., Ostdiek, L., (*) Bullinger, S., (*) Malkani, A. (*) (2023). Exploring Science Teacher Value-Added Measures and Instructional Quality. *A Paper for the Annual Meeting of the American Educational Research Association.* Chicago, IL.

Oz., E.(+) and Kloser, M. (2022). Middle school students' understanding of and interest in STEM-related careers. *A Paper for the Annual Meeting of the American Educational Research Association.* San Diego, CA.

Kloser, M., Szopiak, M., Wagner, C. (2022). Effects of pedagogical interruptions on secondary student interest, engagement, and comprehension of narrative science videos. *A Paper for the National Association of Research in Science Teaching.* Vancouver, Canada.

Kloser, M., Szopiak, M., & Wagner, C. (2021). A storied discipline: Exploring a place for narrative in science education. *A Paper for the National Association of Research in Science Teaching.* Virtual Conference.

Oz, E.(+) and Kloser, M. (2021). Motivational factors mediating attitudes toward STEM careers amongst a national sample of middle school students. *A Paper for the National Association of Research in Science Teaching.* Virtual Conference.

Oz, E.(+) and Kloser, M. (2021). Middle school students' motivational dispositions and STEM career attitudes. *A Paper for the Annual Meeting of the American Educational Research Association.* Virtual Conference.

Doan, S. Kaufman, J.H., Kloser, M.J.. Schweig, J.D., & Tekkumru-Kisa, M. (2021). What do science teachers know about three-dimensional science standards and why does it matter? *A Paper for the Annual Meeting of the American Educational Research Association.* Virtual Conference.

Kloser, M., Wilsey, M., Oz, E.(+) (2020). Middle Grade STEM Teachers' Conceptions and Prioritization of Core Instructional Practices Over Time. *A Paper for the Annual Meeting*

of the National Association of Research in Science Teaching. Orlando, FL. [Cancelled due to COVID-19]

Silla, E.,(*) & Hornburg, C. B., Kloser, M., & McNeil, N. M. (2020). Research-based teaching practices for improving students' understanding of mathematical equivalence have not made it into elementary classrooms. In S. Denison, M. Mack, Y. Xu, & B. C. Armstrong (Eds.), Proceedings of the 42nd Annual Conference of the Cognitive Science Society. Austin, TX: Cognitive Science Society.

Wilsey, M.(@) and Kloser, M. (2020). Changes in middle school S.T.E.M. teachers' drawn mental models of STEM education over time. *A Paper for the Annual Meeting of the National Association of Research in Science Teaching.* Orlando, FL. [Cancelled due to COVID-19]

Kloser, M., Martinez, J-F., Stecher, B., Edelman, A.,(@) Floyd, C., Srinivasan, J.(@) (2019). Interrogating practice or 'show-and-tell'?: Lessons learned from a digital-portfolio based PLC. *A Paper for the Annual Meeting of the National Association of Research in Science Teaching.* Baltimore, MD.

Kloser, M., Borko, H., Wilsey, M.,(@) & Rafanelli, S.(@) (2018). Leveraging portfolios in professional development for middle school science teachers' assessment and data-use practice. *A Paper for the Annual Meeting of the American Educational Research Association.* New York, NY.

Kloser, M., Wilsey, M.,(@) Madkins, T.,(+) Windschitl, M., Wells, A., Carlson, J., & Davis, B. (2018). Connecting the dots: Secondary science teacher candidates' uptake of facilitating discussions from teacher education experiences. *A Paper for the Annual Meeting of the National Association of Research in Science Teaching.* Atlanta, GA.

Martinez, J. F., Stecher, B., & Kloser, M. (2018). Measuring instruction using classroom artifacts and portfolios: Evidence from four recent studies. *A Symposium for Annual Meeting of the National Council on Measurement in Education.* New York, NY.

Rafanelli, S.,(@) Borko, H., Kloser, M., & Wilsey, M.(@) (2018). Science teachers' changing assessment practices: Case studies of individual change through PD and professional collaboration. *A Paper for the Annual Meeting of the National Association of Research in Science Teaching.* Atlanta, GA.

Rafanelli, S.,(@) Borko, H., Kloser, M., & Wilsey, M. (2017). From focusing on grades to exploring student thinking: A case study of change in assessment practice. *A Paper for the Annual Meeting of the American Educational Research Association*. San Antonio, TX.

Kloser, M., Gottlieb, J.,(+) Wilsey, M., Svarovsky, G. N., Kirkland, P., & Puricelli, J.(*) (2017). Exploring the relationship among middle grade teacher's conceptions of STEM and equity. *A Paper for the Annual Meeting of the National Association of Research on Science Teaching.* San Antonio, TX.

Martinez, F., Riedell, K.,(@) Rocchio, R., Srinivasan, J.,(@) Kloser, M., Wilsey, M., & Stecher, B. (2016). Next generation tablet e-portfolio tool for documenting and reflecting on instructional practice: Possibilities for teacher evaluation and development. *A Paper for the Annual Meeting of the European Association for Research on Learning and Instruction.* Oslo, Norway.

Kloser, M., Borko, H., Wilsey, M., & Rafanelli, S.(@) (2016). Science teachers' use of data for instructional decisions: Mental models of middle school science assessment practice. *A Paper for the Annual Meeting of the National Association of Research for Science Teaching.* Baltimore, MD.

Kloser, M., Wilsey, M., Hopkins, D.,(@) Dallavis, J.,(@) Lavin, E., & Comuniello, M.(*) (2016). Dual identities: Toward a framework for STEM-focused Catholic schools. *A Paper for the Annual Meeting of the National Association of Research for Science Teaching.* Baltimore, MD.

Davis, B., Kloser, M., Windschitl, M., Wells, A., & Carlson, J. (2016). Teaching the practice of leading sensemaking discussions in science: Using rehearsals. *A Paper for the Annual Meeting of the American Education Research Association.* Washington DC.

Martinez, J. F., Kloser, M., Srinivasan, J., Riedell, K.,(@) Stecher, B., Rocchio, R., Wilsey, M., & Tangmunarunkit, H. (2016). A tablet-based teacher e-portfolio tool for documenting and reflecting on next generation science instruction. *A Paper for the Annual Meeting of the American Education Research Association.* Washington DC.

Kloser, M., Borko, H., Martinez J. F., Stecher, B., & Luskin, R.(@) (2014). Portraits of assessments: The intended and enacted assessments in middle school science classrooms. *A Paper for the Annual Meeting of the National Association of Research for Science Teaching.* Pittsburgh, PA.

Core Practice Consortium. (2014). Enriching research and innovation through the specification of professional practice: The Core Practice Consortium. Presidential Session. *A Paper for the Annual Meeting of the American Educational Research Association.* Philadelphia, PA.

Kloser, M. (2013). A Different Common Core: An Expert Delphi Study on Core Science Teaching Practices. *A Paper for the Annual Meeting of the National Association of Research for Science Teaching.* Puerto Rico.

Kloser, M. & Bofferding, L. (2013). Middle and High School Students' Responses to Climate Change: The Conflation of Mitigation and Adaptation. *A Paper for the Annual Meeting of the National Association of Research for Science Teaching.* Puerto Rico.

Kloser, M. (2013). A Different Common Core: An Expert Delphi Study on Core Science Teaching Practices. *A Paper for the Annual Meeting of the American Educational Research Association.* San Francisco, CA.

Kloser, M. & Bofferding, L. (2013). Middle and High School Students' Responses to Climate Change: The Conflation of Mitigation and Adaptation. *A Paper for the Annual Meeting of the American Educational Research Association.* San Francisco, CA.

Martinez, J. F., Borko, H., Stecher, B., Luskin, R., & Kloser, M. (2013). Measuring the Classroom Environment through Student Surveys: Methodological, Conceptual and Policy Issues. *A Paper for the Annual Meeting of the American Educational Research Association.* San Francisco, CA.

Kloser, M. (2012). Formative assessment in science and math classrooms. *Invited Presenter for the Notre Dame Forum on K-20 STEM Education.*

Kloser, M. (2012). Performance assessments and science education. *Invited Presenter for the Spring Knowles Science Teaching Fellows Meeting*. Los Angeles, CA.

Kloser, M. (2012). Comparative interactions of high school biology students engaging textbook accounts and narratives of historical experiments. *A Paper for the Annual Meeting of the National Association of Research for Science Teaching.* Indianapolis, IN.

Martinez, J. F., Borko, H., Stecher, B., Luskin, R., & Kloser, M. (2011). Measuring quality assessment in science classrooms through artifacts and self-report. *A Paper for the Annual Meeting of the American Educational Research Association.* New Orleans, LA.

Kloser, M. & Brownell, S. (2011). Comparing outcomes of traditional 'cookbook' versus single-question, open-ended undergraduate biology labs. *A Poster Presentation for the Annual Meeting of the National Association for Research in Science Teaching.* Orlando, FL.

Kloser, M. (2010). The unique nature of biology and its implications for biology education. *A Paper for the Annual Meeting of the National Association for Research in Science Teaching.* Philadelphia, PA.

Kloser, M. (2010). I earned an "A" in Spanish, but got lost in Spain: Why performance assessments matter for student learning. *A Presentation for the Annual GEOTech Conference*. Dallas, TX.

Kloser, M. (2009). Teaching evolution. *A Presentation for the Annual Meeting of the National Catholic Education Association.* Anaheim, CA.

Presentations at Notre Dame

Kloser, M., Wagner, C., and Szopiak, M. (2023). Science narratives and pedagogical interruptions. *A Presentation for the ND PIER community.*

Kloser, M. (2021). Applying an equity framework to STEM Contexts. *A Presentation for the Making STEM a Force for Good: Excellence in Teaching Conference.* Virtual Conference.

CONSULTING & ADVISORY BOARDS

2018 – 2022 Advisory Board, *Intelligent diagnostic assessment platform for high school statistics*. (IES Grant – Cheng, Y., PI)

2017 – 2021 Advisory Board, *Exploring differences between instructors' exams and how these differences produce scores that could inaccurately and inequitably represent student understanding.* (NSF Grant – Brownell, S., PI)

2017 – 2020 Project S.I.M.P.L.E. Consultant

2017 Pew Research Survey Consultant on STEM Education

2015 – 2017 Advisory Board, *Illuminating the black box: Using consensus in student survey reports as an indicator of instructional microclimates in mathematics and science.* (NSF Grant – Schweig, J., PI)

SERVICE AND AWARDS

Service

2024 – Present *JRST Editor* (1st issue under editorial team in 2025)
2021 – Present Tutor-ND Steering Committee
2012 – Present Director, Notre Dame Center for STEM Education
2020 – 2023 *JRST* Editorial Board
2012 – 2020 NARST Strand 1 & 4 Conference Proposal Reviewer
2016 – 2017 Department of Biological Sciences Introductory Biology Redesign Committee
2016 – 2017 Intellectual Virtues Planning Committee (Templeton Grant)
2012 – 2016 Indiana STEM Education Advisory Board
2014 – 2016 Orthoworx Education Council Board Member
2012 – 2015 Committee Member, NARST Early Career in Research Award
2010 – 2011 Committee Member, Stanford School of Education Dean Search Committee
Stanford Office of the Provost

Graduate Dissertation Advising
2019 Whitney Dove, Texas Tech University, College of Education, Committee Member
2014 Katy Lichon, Southern Methodist University, School of Education and Human Development, Committee Member

Undergraduate Thesis Advising/Co-Advising
2024 Aidan Meuninck
2021 Matty Aubourg, Audrey Immonen, Rachel Wittmer
2019 Alice Treuth
2018 Kyra Twohy
2017 Madelyn Nelson

2016 – 2023 52 Senior ESS Capstone Research Projects Advised

Ad Hoc Journal/Grant Reviewer
Action in Teacher Education
AERJ
Berkeley College Record
CBE-Life Sciences
Cultural Studies in Science Education
Education Evaluation and Policy Analysis
Educational Researcher
International Journal of Science Education
Journal of Research in Childhood Education
Journal of Research in Science Teaching
National Science Foundation
Psychology in Schools
Review of Research in Education
School Science and Mathematics
Science Education
Spencer Foundation

Conference Proposal Reviewer
AERA 2011 – Present
JRST 2011 - Present

Awards

2015	JRST Outstanding Paper Award National Association for Research in Science Teaching
2014	'Research Worth Reading' Selection National Association of Research in Science Teaching
2011	NARST Outstanding Dissertation Research Award Finalist National Association for Research in Science Teaching
2011	NARST Conference Outstanding Paper Award National Association for Research in Science Teaching
2010	Gerald J. Lieberman Fellowship
2004	Master of Education Commencement Speaker University of Notre Dame
2004	Theodore Ryken Award for Teaching and Service Holy Family High School, Birmingham, AL
2002	Summa cum Laude University of Notre Dame

2002	Phi Alpha Theta, History Honor Society University of Notre Dame
1998 – 2002	Lilly Scholar University of Notre Dame

PROFESSIONAL ORGANIZATIONS

2009 – Present	National Association for Research in Science Teaching
2008 – Present	American Educational Research Association
2012 – 2020	National Science Teachers Association
2005 – 2006	Association for Supervision and Curriculum Development