

Elizabeth (Libby) Grace
Doctoral Student in Mathematics and Science Education
Department of Teaching and Learning, College of Education
Washington State University
Phone: (831) 212 – 3624
E-Mail: elizabeth.grace@wsu.edu

Education

M.A., Teaching (Spring 2015)

Dominican University, River Forest, IL

B.A., Environmental Studies (Spring 2011)

University of California, Santa Cruz, CA

Academic and Research Positions

Graduate Teaching Assistant

Middle Level Mathematics Endorsement Program, Washington State University, Supervised by Dr. David Slavitt (August 2018 – May 2019).

Graduate Research Assistant

Health Education through Arts-Based Learning (NIH SEPA funded), Washington State University, Supervised by Dr. Molly Kelton (September 2018 – Present).

Areas of Interest

- Informal science education for scientific literacy.
- Integrated STEAM (Science, Technology, Engineering, Arts, and Mathematics) education to support STEM learning for all.
- Bridging STEM learning settings through in- and out-of-school partnerships.

Scholarly Achievements

Journal Articles

Danielson, R. W., **Grace, E.**, White, A., Martinez, A., Kelton, M., Fallon, M., Owen, J., & Butterfield, P. (Under Review). Promoting Systems Thinking Through Arts-Based Science Activities. *Washington Education Research Journal*.

- Slavit, D., **Grace, E.**, & Lesseig, K. (Under Review). STEM Ways of Thinking. *Journal for STEM Education Research*.
- Forster, M., Bestelmeyer, S., Baez-Rodriguez, N., Berkowitz, A., Caplan, B., Esposito, R., **Grace, E.**, & McGee, S. (2018). Data Jams: Promoting data literacy and science engagement while encouraging creativity. *The Science Teacher*, 86(2).
- Bestelmeyer, S., **Grace, E.**, Haan-Amato, S., Pemberton, R. & Havstad, K. (2018) Adapting to changes in K-12 science education: an ecology education program case study.” *BioScience*, 68(9).

Conference Presentations

- Danielson, R., **Grace, E.**, Kelton, M., White, A., Martinez, A. Owen, J., & Butterfield, P., (Accepted). Promoting Systems Thinking Through Arts-Based Science Activities. Poster session at International Conference of the Learning Sciences (June 2020).
- Grace, E.**, Danielson, R., Kelton, M., White, A., Martinez, A., Owen, J., Butterfield, P. (Accepted for canceled April 2020 conference). STEAM as a Social Practice: Art of Insects and Zoom. Paper session at American Educational Research Association Annual Conference.
- Grace, E.**, Kelton, M., Danielson, R., White, A., Martinez, A., Owen, J., Butterfield, P. (Accepted for canceled April 2020 conference) Promoting Systems Thinking through Arts Integration. Poster session at American Educational Research Association Annual Conference.
- Slavit, D., Lesseig, K., Holmlund, T., & **Grace, E.** (February 2020). STEM ways of thinking in mathematics teacher education. Brief report at Association of Mathematics Teacher Educators Annual Conference.
- Kelton, M., Martinez, A., White, A.J., Owen, J., Danielson, R., **Grace, E.**, & Butterfield, P. (December 2019). Participatory approaches to arts+science programming. Roundtable presented at the annual meeting of the Washington Educational Research Association (WERA).
- White, A.J., Danielson, R. W., Fallon, M., Kelton, M., Martinez, A., Owen, J., **Grace, E.**, & Butterfield, P. (December 2019). Equity and engagement through art-based assessment. Interactive workshop presented at the annual meeting of the Washington Educational Research Association (WERA).
- Slavit, D., **Grace, E.**, & Lesseig, K. (November 2019). STEM Ways of Thinking. Brief research report at Psychology of Mathematics Education – North America Conference.
- Kelton, M. L, **Grace, E.**, Danielson, R., Owen, J., White, A., Ord, G., Butterfield, P., & Martinez, A. (April 2019). Health Education through Arts-based Learning (HEAL): A Partnership to Investigate Interdisciplinary Science Programs in Rural Communities. Poster presented at NIH’s Science Education Conference, Washington, D.C

Kelton, M. L., Danielson, R., Owen, J., White, A., Ord, G., Butterfield, P., Martinez, A., & **Grace, E.** (March 2019). Health Education through Arts-based Learning (HEAL): A Pilot Program on the Art of Insects. Poster presented at WSU's Academic Showcase, Pullman, WA.

Grace, E., Kelton, M. L., White, A., Danielson, R., Owen, J., Butterfield, P., Martinez, A., & Ord, G. (March 2019). Health-science education through arts-based learning: A partnership to increase minority and rural STEM representation. Interactive workshop conducted at the 15th Annual Globalization Diversity, and Education Conference, Airway Heights, WA.

Grant Related Activity

Grace, E. (2019-2020). *Department of Teaching and Learning Graduate Student Support Grant*. Washington State University. \$500.

Kelton, M. L., Owen, J. P., Danielson, R., & Butterfield, P. (2018-2023). *Health Education through Arts-based Learning (HEAL): A Partnership to Investigate Interdisciplinary Science Programs in Rural Communities*. Research project through the National Institutes of Health Science Education Partnership Award program. \$1,195,049. (Awarded 2018, Grant # 1R25GM129814-01). **Grace** is a graduate research assistant on this grant from 2018 – present.

Bestelmeyer, S. (2016-2018). *New Mexico Climate Champions*. Project funded by the Environmental Protection Agency Environmental Education Award. Total awarded: \$90,000. **Grace** was primary staff supporting curriculum development and implementation.

Fellowships

National Institute for Health, Science Education Conference Scholarship Recipient (2019). Washington, D.C.

Teach for America Corps Member (2013). Chicago, IL.

Teaching

Courses at Washington State University

Middle-Level Mathematics Proportional Reasoning (Department of Teaching and Learning, Fall 2018)

Middle-Level Mathematics Algebraic Reasoning for the Middle School Math Teacher (Mathematics Department, Spring 2019).

Other Teaching and Educational Design Experience

Asombro Institute for Science Education, Las Cruces, NM. Science Education Specialist for non-profit science education institution (June 2015 – July 2018).

Chicago Public Schools, Chicago, IL. Middle school (6th – 8th grade) science teacher (August 2013 – June 2015).

Orange County Department of Education, Running Springs, CA. Lead instructor for outdoor science school (August 2011 – May 2012).

Guest Teaching

“The Data Jam Instructional Approach” in Elementary Mathematics Methods (Department of Teaching and Learning, Washington State University, Spring 2019).

Professional Service

Board member for Corrales Institute for New Education, a New Mexico nonprofit 501(c)(3) corporation focused on educational equity and out-of-school learning.

Advisory team member for Audubon Society of New Mexico climate change curriculum development (2017-2018).

Reviewer for peer-reviewed journals:

- National Environmental Education Foundation (2016 – 2018)