# NICOLE M. WESSMAN-ENZINGER, PHD

815.530.6281 | nenzinger@georgefox.edu

## SUMMARY OF PROFESSIONAL EXPERIENCE

**George Fox University, Newberg, OR** 2015 – present
Associate Professor of Education

**Illinois State University, Normal, IL** 2012 – 2015
Instructor of Mathematics

**Olivet Nazarene University, Bourbonnais, IL** 2010 – 2012
Assistant Professor of Mathematics

**Herscher High School, Herscher IL** 2005 – 2010
High School Mathematics Teacher

## EDUCATION

**Illinois State University, Normal, IL** 2015
**PhD in Mathematics Education**
Dissertation:
*Developing and Describing the Use and Learning of Conceptual Models for Integer Addition and Subtraction of Grade 5 Students*

**DePaul University, Chicago, IL** 2009
**MA in Mathematics Education**

**Olivet Nazarene University, Bourbonnais, IL** 2005
**BS in Mathematics (Education)**

## HONORS & AWARDS

George Fox University Faculty Achievement Award in Undergraduate Research and Scholarship 2023

Fulbright Specialist 2020 announced

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| Nominated for Teacher of the Year at George Fox University | 2017, 2018 |
| Service, Teaching, and Research (STaR) in Mathematics Education Fellow from the Association of Mathematics Teacher Educators (AMTE) | |
| Scholarly Inquiry and Practice (SIP) Conference for Mathematics Methods Funded Participant | 2016 |
| Illinois State University Graduate Student Teaching Award Nominee | 2015 |
| Association of Mathematics Teacher Educators (AMTE) Susan Gay Travel Scholarship Recipient | 2015 |
| Psychology of Mathematics Education Young Researcher | 2015 |
| Illinois State Dissertation Completion Grant Recipient | 2014 |
| O' Daffer Fellowship Recipient | 2014 – 2015 |
| Illinois Section of the Mathematics Association of America (ISMAA) Project NExT Fellow | 2012 |
| Graduated with Distinction from DePaul University | 2009 |
| Graduated Summa Cum Laude from Olivet Nazarene University | 2005 |
| Dean's List every semester at Olivet Nazarene University | 2001 – 2005 |
| National Dean's List at Olivet Nazarene University | 2005 |
| Pi Mu Epsilon Honor Society | 2004 |
| Kappa Delta Pi Honor Society | 2004 |
| Phi Delta Lambda Honor Society | 2004 |
| Pence and Boyce Summer Research Grant Recipient | 2004 |

## PUBLICATIONS & PAPERS

### In press

**Wessman-Enzinger, N. M.,** & Gertenschlager, N. (2024). *Celebrating mathematical mistakes in thinking and learning.* Solution Tree.

### Dissertation

Wessman-Enzinger, N. M. (2015). *Developing and describing the use and learning of Conceptual Models for Integer Addition and Subtraction of grade 5 students*. Normal, IL: Proquest.

### Journal Articles (Peer-Reviewed)

Wessman-Enzinger, N. M. (2023). Building a number system. *Mathematics Teacher: Learning & Teaching, PK-12, 116*(10), 771–775.

**Wessman-Enzinger, N. M.,** & Gertenschlager, N. (2023). Unpacking elementary preservice teachers' ways of reflecting on conceptual mistakes. *Investigations in Mathematics Learning*. https://doi.org/10.1080/19477503.2023.2187167

**Wessman-Enzinger, N. Me.,** & Tobias, J. M. (2020). The dimensions of prospective elementary and middle school teachers' problem posing for integer addition and subtraction. *Journal of Mathematics Teacher Education*. https://doi.org/10.1007/s10857-020-09477-x

**Wessman-Enzinger, N. M.,** Tobias, J. M., Olanoff, D. (2020). Prospective teachers' attention to realism and consistency with negative integers, addition, and temperature. *Investigations in Mathematics Learning, 12*(3), 226–241. https://doi.org/10.1080/19477503.2020.1784372

**Wessman-Enzinger, N. M.,** & Hofer, K. (2020). Opportunities for re-defining unconventional units. *Mathematics Teacher: Learning and Teaching Pre-K–12, 113*(6), 460–467. doi: 10.5951/MTLT.2018.0035

**Wessman-Enzinger, N. M., &** Mooney, E. S. (2019). Conceptual models for integer addition and subtraction. *International Journal of Mathematics Education in Science and Technology*, 1–25. doi: 10.1080/0020739X.2019.1685136.

Wessman-Enzinger, N. M. (2019a). Children's learner-generated drawings for integer addition and subtraction. *Journal of Mathematical Behavior, 53,* 105–128. https://doi.org/10.1016/j.jmathb.2018.03.010

Wessman-Enzinger, N. M. (2019b). Consistency of integer number sentences to temperature problems. *Mathematics Teaching in the Middle School, 24*(5), 267–272.

Wessman-Enzinger, N. M. (2018). Descriptions of the integer number line in United States school mathematics in the 19th century. *Mathematical Association of America Convergence: Loci*. https://www.maa.org/press/periodicals/convergence/descriptions-of-the-integer-number-line-in-united-states-school-mathematics-in-the-19th-century

**Wessman-Enzinger, N. M.,** Schwartz, B., Lynch, S. (2018). The base 10 block challenge. *Teaching Children Mathematics*, *24*(4), 218–222.

Baek, J., Wickstrom, M. H., Tobias, J. M., Miller, A., Safak, E., **Wessman-Enzinger, N. M.,** Kirwan, V. (2017). Preservice teachers' pictorial strategies for multistep fraction multiplication. *The Journal of Mathematical Behavior, 45,* 1–14.

Bofferding, L., & **Wessman-Enzinger, N. M.** (2017). Subtraction involving negative numbers: Connecting to whole number reasoning. *The Mathematics Enthusiast, 14,* 241–262.

Cullen, A. L., Tobias, J. M., Safak, E., Kirwan, J. V., **Wessman-Enzinger, N. M.,** Baek, J. M., & Wickstrom, M. H. (2017). Algebraic reasoning and symbol use in preservice teachers on a multi-step fraction task. *International Journal for Mathematics Teaching and Learning, 18*(1), 109–131.

Hertel, J. T., & **Wessman-Enzinger, N. M.** (2017). Examining Pinterest as a curriculum resource for negative integers: An initial investigation. *Educational Sciences*, 1–11. doi:10.3390/educsci7020045

Wessman-Enzinger, N. M. (2017). Volume conservation: An unexpected result*. The Oregon Teachers of Mathematics*, 35.

Bofferding, L., ***&* Wessman, N. M.** (2015). Solutions to the Integers: Draw or Discard Game. *Teaching Children Mathematics*, *21*(8), 460–463.

Wessman-Enzinger, N. M. (2014). An investigation of subtraction algorithms from the 18th and early 19th centuries. *Mathematical Association of America Convergence: Loci*. http://www.maa.org/publications/periodicals/convergence/an-investigation-of-subtraction-algorithms-from-the-18th-and-19th-centuries.

**Wessman-Enzinger, N. M.,** & Bofferding, L. (2014). Integers: Draw or discard! game. *Teaching Children Mathematics*, *20*(8), 476–480.

**Wessman-Enzinger, N. M.,** & Mooney, E. S. (2014). Informing Practice: Making sense of integers through story-telling. *Mathematics Teaching in the Middle School*, *20*(4), 202–205.

**Wessman-Enzinger, N. M.,** & Sipes, R. A. (2014). Fractions fall from the sky. *Wisconsin Mathematics Teacher*, *65*(2), 4–7.

Wickstrom, M. H., & **Wessman-Enzinger, N. M.** (2014). A new spin on fair sharing. *Wisconsin Mathematics Teacher*, *66*(1), 16–20.

Wessman-Enzinger, N. M. (2013). Inquiry, logic, and puzzles. *CMC ComMuniCator, 37*(4), 28–30.

## Conference Publications (Peer-Reviewed)

**Wessman-Enzinger, N. M.,** & Bofferding, L. (2023). Beyond the statistics: Joy in mathematics. In T. Lamberg & D. Moss (Eds.), *Proceedings of the forty-fifth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 27–36). University of Nevada, Reno.

**Wessman-Enzinger, N. M.**, & Stilwell, C. (2022). Middle school students' types of mathematical personification. In A. E. Lischka, E. B. Dyer, R. S. Jones, J. N. Lovett, J. Strayer, & S. Drown (Eds.), *Proceedings of the forty-fourth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1722–1730). Nashville, TN.

Stilwell, C., & **Wessman-Enzinger, N. M.** (2022). Middle school students' personifications of mathematics. *American Educational Research Association.* San Diego, CA.

Wessman-Enzinger, N. M. (2021). Initial insights into children's constructions of integer division*.* In D. Olanoff, K. Johnson, & S. Spitzer, (Eds.), *Proceedings of the forty-third annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Philadelphia, PA.

Galusha-McRobbie, S. & **Wessman-Enzinger, N. M.** (2021). An exploration into children's thinking about learner-generated drawings*.* In D. Olanoff, K. Johnson, & S. Spitzer, (Eds.), *Proceedings of the forty-third annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 288–292). Philadelphia, PA.

**Wessman-Enzinger, N. M.,** & Bofferding, L. (2021). The messiness of learning trajectories: An example with integer addition and multiplication. In M. Inprasitha, N, Changsri,

Boonsena (Eds.), *Proceedings of the 44th Conference of the International Group for the Psychology of Mathematics Education* (Vol. 1, p. 192). Khon Kaen, Thailand: PME.

Wessman-Enzinger, N. M. (2020). Children's integer division: Extending analogies and direct modelling. In A. I. Sacristán, J. C. Cortés-Zavala, & P. M. Ruiz-Arias (Eds.), *Mathematics Education Across Cultures: Proceedings of the 42nd Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Mexico* (pp. 356–361). Cinvestav.

Wessman-Enzinger, N., Hertel, J., & Dimmel, J. K. (2020, Apr 17–21) *Mathematics Education Communities: Crossing Virtual Boundaries* [Symposium]. AERA Annual Meeting San Francisco, CA http://tinyurl.com/t8u68kh (Conference Canceled)

**Wessman-Enzinger, N. M.,** Hertel, J., & Dimmel, J. (2019). What does it take to be a fox? New horizons for communities of practice. In S. Otten, S., A. G. Candela, Z. de Araujo, C. Haines, & C. Munter (Eds.), *Proceedings of the 41st annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 641–649). St Louis, MO: University of Missouri.

**Wessman-Enzinger, N. M.,** & Bofferding, L. (2019). Prospective teachers' collective knowledge: Solving integer missing subtrahend problems. In S. Otten, S., A. G. Candela, Z. de Araujo, C. Haines, & C. Munter (Eds.), *Proceedings of the 41st annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1136–1140). St Louis, MO: University of Missouri.

**Wessman-Enzinger, N. M.,** & Murray, E. (2019). Prospective teachers' use of chip model. *American Educational Research Association.* Toronto, Canada: AERA.

Carpenter, C. H., & **Wessman-Enzinger, N. M.** (2018). Grade 5 students' negative integer multiplication strategies. In T. E. Hodges, G. J. Roy, & A. M. Tyminski, (Eds.), *Proceedings of the 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 139–146). Greenville, SC: University of South Carolina & Clemson University.

**Wessman-Enzinger, N. M.,** & Murray, E. (2018). Prospective teachers use of chip model. In T. E. Hodges, G. J. Roy, & A. M. Tyminski, (Eds.), *Proceedings of the 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 803–806). Greenville, SC: University of South Carolina & Clemson University.

Bofferding, L. & **Wessman-Enzinger, N.** (2018). Prospective teachers' explanations for integer word problems. In E. Bergqvist, M. Österholm, C. Granberg, & L. Sumpter (Eds.). *Proceedings of the 42nd Conference of the International Group for the Psychology of Mathematics Education* (Vol. 5, p. 23). Umeå, Sweden: PME.

Wessman-Enzinger, N. M. (2017). Grade 5 children's number line drawings for integers. In E. Galindo & J. Newton (Eds.), *Proceedings of the 39th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 291–294). Indianapolis, IN: Hoosier Association of Mathematics Teacher Educators.

Wessman-Enzinger, N. M. (2017). Whole number and integer analogies. In E. Galindo & J. Newton (Eds.), *Proceedings of the 39th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 319–322). Indianapolis, IN: Hoosier Association of Mathematics Teacher Educators.

Tobias, J. M., **Wessman-Enzinger, N. M**., Olanoff, D. (2017). Knowledge for teaching integers: Attending to realism and consistency in a temperature context. In E. Galindo & J. Newton (Eds.), *Proceedings of the 39th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 613–616). Indianapolis, IN: Hoosier Association of Mathematics Teacher Educators.

Wessman-Enzinger, N. M. (2016). Children's visual mediators for integer addition and subtraction open number *13th International Congress on Mathematics Education*. Hamburg, Germany.

Hertel, J., & **Wessman-Enzinger, N. M.** (2016). The mathematical integrity of integer "pins" on Pinterest. In M. B. Wood, E. E. Turner, M. Civil, & J. A., Eli (Eds.), *Proceedings of the 37th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (p. 1555).

**Wessman-Enzinger, N. M.,** Olanoff, D., & Tobias, J. (2016). Prospective teachers' attention to realism and consistency in a child's temperature story. In M. B. Wood, E. E. Turner, M. Civil, & J. A., Eli (Eds.), *Proceedings of the 37th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (p. 527).

Wessman-Enzinger, N. M. (2016). Refinement of the Conceptual Models for Integer Addition and Subtraction. *National Council of Teachers of Mathematics Education Research Session Brief Report.* San Francisco, CA: NCTM.

Bofferding, L. & **Wessman-Enzinger, N. M.** (2015). International integer comparison study. In K. Beswick, T. Muir, & J. Wells (Eds.), *Proceedings of the 39th Annual Meeting of the International Group for the Psychology of Mathematics Education* (Vol. 1, pp. 131–132). Hobart, Australia: PME.

Wessman-Enzinger, N. M. (2015). Alice's drawings for integer addition and subtraction open number sentences. In Bartell, T. G., Bieda, K. N., Putnam, R. T., Bradfield, K., &

Dominguez, H. (Eds.), *Proceedings of the 37th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 241–244). East Lansing, MI: Michigan State University.

Wessman-Enzinger, N. M. (2015). The development of the addition and subtraction of integers: The case of Jace. *National Council of Teachers of Mathematics Education Research Session Brief Report.* Boston, MA: NCTM.

**Wessman-Enzinger, N. M.,** & Bofferding, L. (2015). Leveraging different perspectives to explore student thinking about integer addition & subtraction. In Bartell, T. G., Bieda, K. N., Putnam, R. T., Bradfield, K., & Dominguez, H. (Eds.), *Proceedings of the 37th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1377–1383). East Lansing, MI: Michigan State University.

**Wessman-Enzinger, N. M.,** & Tobias, J. (2015). Preservice teachers' temperature stories for integer addition and subtraction. In K. Beswick, T. Muir, & J. Wells (Eds.), *Proceedings of the 39th Annual Meeting of the International Group for the Psychology of Mathematics Education* (Vol. 4, pp. 289–296). Hobart, Australia: PME.

Bofferding, L., **Wessman-Enzinger, N. M.**, Gallardo, A., Salinas, G., & Peled, I. (2014). Negative numbers: Bridging contexts and symbols. In S. Oesterle, C. Nichol, P. Liljedahl, & D. Allan, *Proceedings of the joint meeting of PME 38 and PME-NA 36* (Vol. 1, p. 204). Vancouver, Canada: PME.

**Wessman-Enzinger, N. M.,** & Mooney, E. S. (2014). Uncovering conceptual models of integers. In S. Oesterle, C. Nichol, P. Liljedahl, & D. Allan, *Proceedings of the joint meeting of PME 38 and PME-NA 36* (Vol. 6, p. 409). Vancouver, Canada: PME.

Wessman-Enzinger, N. M. (2013). Contexts of student constructed stories about negative integers. In M. Martinez & A. Castro Superfine (Eds.), *Proceedings of the 35th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (p. 167). Chicago, IL: University of Illinois at Chicago.

**Wessman-Enzinger, N. M.**, & Langrall, C. W. (2013). Reflections about questioning: A continuum of development. In M. Martinez & A. Castro Superfine (Eds.), *Proceedings of the 35th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1089–1092). Chicago, IL: University of Illinois at Chicago.

**Book Editor**

Bofferding, L., & **Wessman-Enzinger, N. M.** (Eds.). (2018). *Exploring the integer addition and subtraction landscape: Perspectives on integer thinking*. Cham, Switzerland: Springer.

## Book Chapters (Editor-Reviewed)

Hertel, J. T., **Wessman-Enzinger, N. M.,** & Dimmel, J. K. (2020). Mathematics education communities: Crossing virtual boundaries. In N. Radakovic & L. Joa (Eds.), *Borders in Mathematics Pre-Service Teacher Education* (pp. 207–224). Cham, Switzerland: Springer.

Wessman-Enzinger, N. M. (2019). Integers as directed quantities. In A. Norton & M. Alibali (Eds.), *Constructing number* (pp. 279–305). Cham, Switzerland: Springer.

Bofferding, L., & **Wessman-Enzinger, N. M.** (2018). Connecting pathways across the integer addition and subtraction landscape. In L. Bofferding & N. M. Wessman-Enzinger (Eds.), *Exploring the Integer Addition and Subtraction Landscape: Perspectives on Integer Thinking* (pp. vi–ix). Cham, Switzerland: Springer.

Bofferding, L., & **Wessman-Enzinger, N. M.** (2018). Nuances of prospective teachers' interpretations of integer word problems. In L. Bofferding & N. M. Wessman-Enzinger (Eds.), *Exploring the Integer Addition and Subtraction Landscape: Perspectives on Integer Thinking* (pp. 191–212). Cham, Switzerland: Springer.

Tobias, J., **Wessman-Enzinger, N. M.,** & Olanoff, D. (2018). Complexities of prospective teachers' thinking about children's thinking with integers and temperature. In L. Bofferding & N. M. Wessman-Enzinger (Eds.), *Exploring the Integer Addition and Subtraction Landscape: Perspectives on Integer Thinking*. (pp. 213–230). Cham, Switzerland: Springer.

Wessman-Enzinger, N. M. (2018). Integer play and playing with integers. In L. Bofferding & N. M. Wessman-Enzinger (Eds.), *Exploring the Integer Addition and Subtraction Landscape: Perspectives on Integer Thinking* (pp. 25–46). Cham, Switzerland: Springer.

**Wessman-Enzinger, N. M.**, & Bofferding, L. (2018). Reflecting on the landscape: Concluding remarks. In L. Bofferding & N. M. Wessman-Enzinger (Eds.), *Exploring the Integer Addition and Subtraction Landscape: Perspectives on Integer Thinking* (pp. 289–296). Cham, Switzerland: Springer.

**Wessman-Enzinger, N. M.,** & Salem, W. (2018). An illustration of scholarly inquiry from the cognitive perspective: The development of an integer activity for prospective elementary or middle school teachers. In S. Kastberg, A. M. Tyminski, & W. Sanchez

(Eds.), *Building Support for Scholarly Practices in Mathematics Methods* (pp. 183–197). Charlotte, NC: Information Age Publishing.

### Newsletter Articles (Not Peer-Reviewed)

Bofferding, L., & **Wessman-Enzinger, N. M.** (2016). Working group: International integer curriculum study. *PME Newsletter: International Group for the Psychology of Mathematics Education*, 12–14.

**Wessman-Enzinger, N. M.,** & Bofferding, L. (2015). Discussion group 4: Negative numbers: Bridging contexts and symbols. *PME Newsletter: International Group for the Psychology of Mathematics Education*, 12–15.

### Book Reviews (Not Peer-Reviewed)

Wessman-Enzinger, N. M. (2018). Taking action: Implementing effective mathematics teaching practices, grades K–5 (Book review). *Teaching Children Mathematics, 24*(6), 398.

Wessman-Enzinger, N. M. (2016). The architects' project: Area, volume, and nets (Book review). *Mathematics Teaching in the Middle School, 21*(5), 317.

Wessman-Enzinger, N. M. (2014). Exploring number and operations with Geometer's Sketchpad version 5 (Book review). *Teaching Children Mathematics*, *21*(3), 189–19.

## PRESENTATIONS

### Research Presentations (in order by date)

Wessman-Enzinger, N. M. (2024, February). *Preservice teachers' productive struggle stories.* Presentation at Association of Mathematics Teacher Educators, Orlando, FL.

**Wessman-Enzinger, N. M.,** & Carpenter, C. H. (2024, February). *Elementary prospective teachers' perspectives: Integer multiplication, student invented strategies, and integer curriculum.* Presentation at Association of Mathematics Teacher Educators, Orlando, FL.

**Wessman-Enzinger, N. M.,** & Bofferding, L. (2023, October). *Beyond the statistics: Joy in mathematics*. Presentation at the forty-fifth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, University of Nevada, Reno.

Wessman-Enzinger, N. M. (2023, March). *Elementary preservice teachers' favorite mistakes.* Presentation at Pacific Northwest Section of the Mathematical Association of America.

Wessman-Enzinger, N. M., & **Stilwell, C.** (2023, November). *Middle school students' types of mathematical personifications.* Presentation at the forty-fourth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Nashville, TN.

**Stilwell, C.,** & Wessman-Enzinger, N. M. (2022, April). *Middle school students' personifications of mathematics.* Presentation at American Education Research Association, San Diego, CA.

Wessman-Enzinger, N. M. (2021). *Initial insights into children's constructions of integer division.* Presentation at the forty-third annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Philadelphia, PA.

Galusha-McRobbie, S. & **Wessman-Enzinger, N. M.** (2021). *An exploration into children's thinking about learner-generated drawings.* Presentation at the forty-third annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Philadelphia, PA.

**Wessman-Enzinger, N. M.** & Bofferding, L. (2021). *The messiness of learning trajectories: An example with integer addition and multiplication.* Paper presented at the 44th Conference of the International Group for the Psychology of Mathematics Education, Khon Kae University, Thailand (virtual conference).

Wessman-Enzinger, N. M. (2021). *Children's integer division: Extending analogies and direct modelling.* Presentation at North American Chapter of the International Group for the Psychology of Mathematics Education, Mexico (virtual conference).

Gertstenschlager, N., & **Wessman-Enzinger, N. M.** (2020, February). *Supporting preservice teachers' reflection about conceptual mistakes.* Presentation at the Association of Mathematics Teacher Educators conference, Phoenix, Arizona.

**Wessman-Enzinger, N. M.,** Hertel, J., & Dimmel, J. (2019, October). *What does it take to be a fox? New horizons for communities of practice.* Paper presented at 41st annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, St Louis, MO.

**Wessman-Enzinger, N. M.,** & Bofferding, L. (2019, October). *Prospective teachers' collective knowledge: Solving integer missing subtrahend problems.* Paper presented at 41st annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, St Louis, MO.

Wessman-Enzinger, N. M. (2019, August). *Storytelling and summarizing: Mathematical*

*narratives as formative assessment*. Presentation at the Teachers of Teachers of Mathematics conference, Mt. Hood Community College, Portland, OR.

Bofferding, L., & **Wessman-Enzinger, N. M.** (2019, February). *Prospective teachers' integer reasoning: Collective knowledge and productive dispositions*. Presentation at the Association of Mathematics Teacher Educators conference, Orlando, Florida.

Levin, M., Roller, S., & **Wessman-Enzinger, N. M.** (2019, February). *Storytelling and summarizing: Mathematical narratives as formative assessment*. Presentation at the Association of Mathematics Teacher Educators conference, Orlando, Florida.

Carpenter, C. H., & **Wessman-Enzinger, N. M.** (2018, October). *Grade 5 students' negative integer multiplication strategies.* Paper presented at the 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Greenville, SC.

**Wessman-Enzinger, N. M.,** & Murray, E. (2018, October). *Prospective teachers use of chip model.* Paper presented at the 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Greenville, SC.

Bofferding, L. & **Wessman-Enzinger, N.** (2018, July). *Prospective teachers' explanations for integer word problems.* Paper presented at the 42nd Conference of the International Group for the Psychology of Mathematics Education, Umeå, Sweden: PME.

Wessman-Enzinger, N. M. (2017, October). *Grade 5 children's number line drawings for integers.* Paper presented at the 39th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education.

Wessman-Enzinger, N. M. (2017, October). *Whole number and integer analogies*. Paper presented at the 39th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education.

**Wessman-Enzinger, N. M.,** & Carpenter, C. H. (2017, September). *Experience with a prospective teacher/undergraduate researcher: Investigating grade 5 children's reasoning about integer multiplication.* Research presentation at Teachers of Teachers of Mathematics, Newberg, OR.

**Wessman-Enzinger, N. M.** (2017, March). *This is not "New Math," but we can learn lessons from "New Math."* Presentation at Oregon Association of Teacher Educators at the University of Portland, Portland, OR.

**Wessman-Enzinger, N. M.** & Hertel, J. (2017, February). *Examining Pinterest as a Curriculum Resource*. Presentation at the Association of Mathematics Teacher Educators conference, Orlando, Florida.

Olanoff, D., **Wessman-Enzinger, N. M.,** & Tobias, J. (2017, February). *Investigating prospective teachers' evaluations of children's temperature stories*. Presentation at the Association of Mathematics Teacher Educators conference, Orlando, Florida.

Hertel, J., & **Wessman-Enzinger, N. M.** (2016, November). *The mathematical integrity of integer "pins" on Pinterest.* Poster presentation at the 37th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Tucson, Arizona.

**Wessman-Enzinger, N. M.,** Olanoff, D., & Tobias, J. (2016, November). *Prospective teachers' attention to realism and consistency in a child's temperature story*. Poster presentation at the 37th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Tucson, Arizona.

Wessman-Enzinger, N. M. (2016, July). *Children's Visual Mediators for Integer Addition and Subtraction Open Number Sentences.* Short oral paper presented at the 13th International Congress on Mathematics Education, Hamburg, Germany.

Wessman-Enzinger, N. M. (2016, April). *Refinement of the Conceptual Models for Integer Addition and Subtraction*. Research brief paper presented at the Research Conference of the National Council of Teachers of Mathematics, San Francisco, CA.

Wessman-Enzinger, N. M. (2016, April). *Prospective teachers' understandings of integers and temperature*. Presentation at Pacific Northwest Mathematics Association of America, Corvallis, OR.

Wessman-Enzinger, N. M. (2016, April). *Subtraction algorithms from the 18th and 19th centuries.* Presentation at Pacific Northwest Mathematics Association of America, Corvallis, OR.

Wessman-Enzinger, N. M. (2016, February). *Re-defining the role of integer operations in schools and the consequences for teacher preparation*. Poster presentation at Oregon Association of Teacher Education, Monmouth, OR.

Bofferding, L., & **Wessman-Enzinger, N. M.** (2015, November). *Leveraging different perspectives to explore student thinking about integer addition and subtraction.* Working group presentation at the Psychology of Mathematics Education North America Conference, Lansing, MI.

Wessman-Enzinger, N. M. (2015, November). *Alice's drawings for integer addition & subtraction open number sentences.* Paper presented at the Psychology of Mathematics Education North America Conference, Lansing, MI.

Wessman-Enzinger, N. M. (2015, October). *Unpacking children's thinking about subtracting a negative number in the context of temperature*. Poster presented at Scholarly Inquiry and Practice for Mathematics Methods Conference, Atlanta, GA.

Wessman-Enzinger, N. M. (2015, September). *Preservice teachers' temperature stories for integer addition and subtraction*. Research presentation at Teachers of Teachers of Mathematics, Corvallis, OR.

Bofferding, L., & **Wessman-Enzinger, N. M.** (2015, July). *International integer curriculum comparison.* Presentation at the International Group for the Psychology of Mathematics Education, Hobart, Australia.

Wessman-Enzinger, N. M. (2015, July). *Preservice teachers' temperature stories for integer addition and subtraction.* Paper presented at the International Group for the Psychology of Mathematics Education, Hobart, Australia.

Wessman-Enzinger, N. M. (2015, June). *Developing and describing the use and learning of Conceptual Models for Integer Addition and Subtraction of grade 5 students.* Dissertation Defense at Illinois State University, Normal, IL.

Wessman-Enzinger, N. M. (2015, April). *Development of integer addition and subtraction: The case of Jace.* Paper presented at the Research Conference of the National Council of Teachers of Mathematics, Boston, MA.

Wessman-Enzinger, N. M. (2015, February). *From temperature to translation and relativity: Understanding preservice teachers' reasoning about integers.* Individual session presented at the 19th Annual Conference of the Association of Mathematics Teacher Educators, Orlando, FL.

Kirwan, J. V., Miller, A. L., Safak, E., & **Wessman-Enzinger, N. M.** (2015, February). *Algebraic and rational number reasoning: Elementary preservice teachers transitioning from words to symbols.* Individual session presented at the 19th Annual Conference of the Association of Mathematics Teacher Educators, Orlando, FL.

Bofferding, L., & **Wessman-Enzinger, N. M.** (2014, July). *Literature review of integer research in PME and PME-NA proceedings*. Discussion group presentation at the joint meeting of PME 38 and PME-NA 36, Vancouver, Canada.

Wessman-Enzinger, N. M**.** (2014, July). *Developing conceptual models of integers*. Poster presented at the joint meeting of PME 38 and PME-NA 36, Vancouver, Canada.

Wessman-Enzinger, N. M. (2014, April). *Evolution of the integer number line in North American school mathematics*. Paper presented at History and Pedagogy of Mathematics Conference, Normal, IL.

Wessman-Enzinger, N. M. (2014, February). *Context with the negative integers: More than a pedagogical tool*. Presentation at 18th Annual Conference of the Association of Mathematics Teacher Educators, Irvine, CA.

Wessman-Enzinger, N. M. (2013, November). *Developing conceptual models for student thinking about integers*. Dissertation proposal defense at Illinois State University, Normal, IL.

Wessman-Enzinger, N. M. (2013, November). *Contexts of student constructed stories about negative integers*. Poster presented at the North American Chapter of the International Group for the Psychology of Mathematics Education, Chicago, IL.

**Wessman-Enzinger, N. M.**, & Langrall, C. W. (2013, November). *Reflections about questioning: A continuum of development.* Paper presented at the North American Chapter of the International Group for the Psychology of Mathematics Education, Chicago, IL.

Wessman-Enzinger, N. M. (2013, November). *Evolution of the integer number line in North American school mathematics*. Presentation at Group for Education Research in Mathematics (GERM) at Illinois State University, Normal, IL.

Wessman-Enzinger, N. M. (2013, May). *Making sense of negative integers through a story telling approach*. Professional Project Presentation at Illinois State University, Normal, IL.

Wessman-Enzinger, N. M. (2011, October). *Subtraction Algorithms from the 1700s to the 1900s*. Paper presented at the History and Pedagogy of Mathematics Conference, San Diego, CA.

Wessman, N. M. (2004, November). *Properties of special matrices: A linear algebra perspective*. Presentation at Olivet Nazarene University Mathematics & Science Homecoming Meeting, Bourbonnais, IL.

## Practitioner Presentations (in order by date)

**Wessman-Enzinger, N. M.,** & Bofferding, L. (2023, March). *Joy in supporting young mathematicians and their invented notations.* Presentation at National Council of Teachers of Mathematics (virtual).

Wessman-Enzinger, N. M. (2022, May). *Beautiful and powerful mistakes in mathematics*. Presentation at International Christian Community for Teacher Education Conference, Newberg, OR.

Wessman-Enzinger, N. M. (2022, February). *Beautiful and powerful mistakes: Examining integer multiplicative thinking.* Workshop at Metropolitan Mathematics Conference, Chicago, IL (virtual).

**Wessman-Enzinger, N. M.,** Lynch, S., & Swartz, B. (2017, April). *Teaching is tough, but what makes it complex?* Presentation at National Council of Teachers of Mathematics Annual Conference, San Antonio, TX.

Tobias, J., & **Wessman-Enzinger, N. M.** (2016, April). *Using temperature to support understanding with integer addition and subtraction*. Presentation at National Council of Teachers of Mathematics Annual Conference, San Francisco, CA.

Wessman-Enzinger, N. M. (2016, April). *The development of modeling integers in a Translation/Relativity context*. Presentation at National Council of Teachers of Mathematics Annual Conference, San Francisco, CA.

Wessman-Enzinger, N. M. (2015, January). *Positive thinking about negative numbers*. Workshop presented at Metropolitan Mathematics Club Conference, Lincolnshire, IL.

Fraher, C., & **Wessman-Enzinger, N. M.** (2015, January). *Projects in calculus*. Workshop presented at Metropolitan Mathematics Club Conference, Lincolnshire, IL.

Wessman-Enzinger, N. M. (2014, October). *Positive thinking about negative numbers*. Presentation at Illinois Council of Teachers of Mathematics Conference, Tinley Park, IL.

Beck, P., & **Wessman-Enzinger, N. M.** (2014, October). *Compass or protractor, What is this tool?* Presentation at Illinois Council of Teachers of Mathematics Conference, Tinley Park, IL.

Wessman-Enzinger, N. M. (2014, April). *What's a "real" context anyway?* Presentation at National Council of Teachers of Mathematics Annual Meeting, New Orleans, LA.

Fraher, C., & **Wessman-Enzinger, N. M.** (2013, October). *Volume exploration for calculus.* Presentation at Illinois Conference of Teachers of Mathematics Conference, Peoria, IL.

Wessman-Enzinger, N. M. (2013, October). *What's a "real" context anyway?* Presentation at Illinois Conference of Teachers of Mathematics Conference, Peoria, IL.

**Wessman-Enzinger, N. M.**, & Wickstrom, M. H. (2013, April). *Write mathematics into the story.* Presentation at the National Council of Teachers of Mathematics Conference, Denver, CO.

Wickstrom, M. H., & **Wessman-Enzinger, N. M.** (2013, April). *A new spin on fair sharing.* Presentation at the National Council of Teachers of Mathematics Conference, Denver, CO.

**Wessman-Enzinger, N. M.**, & Williams, R. A. (2012, November). *Using children's literature to foster motivation in mathematics*. Presentation at the National Council of Teachers of Mathematics Conference, Chicago, IL.

**Wessman-Enzinger, N. M.**, & Williams, R. A. (2011, October). *Using children's literature to foster motivation in mathematics.* Presentation at Illinois Council of Teachers of Mathematics Conference, Springfield, IL.

Wessman-Enzinger, N. M. (2010, November). *Mathematics + Cooperative Groups = Awesome*. Presentation at Olivet Nazarene Professional Day, Bourbonnais, IL.

Wessman-Enzinger, N. M. (2010, October). *Mathematics + Cooperative Groups = Awesome*. Presentation at Illinois Council of Teachers of Mathematics Conference, Springfield, IL.

Wessman, N. M. (2009, November). *Mathematics + Technology = Dynamic*. Presentation at the Olivet Nazarene University Professional Day, Bourbonnais, IL.

Wessman, N. M. (2009, October). *Do gas prices affect traffic in Chicago?* Presentation at the Illinois Council of Teachers of Mathematics, Peoria, IL.

Wessman, N. M. (2009, January). *Do gas prices affect traffic in Chicago?* Presentation at the Metropolitan Mathematics Club of Chicago Conference, Chicago, IL.

Wessman, N. M. (2008, November). *Do gas prices affect traffic in Chicago?* Presentation at the Olivet Nazarene University Professional Day, Bourbonnais, IL.

## INVITED TALKS

Wessman-Enzinger, N. M. (2023, October). *Beauty and joy in mathematics: An unconventional perspective.* Fall faculty lectures at George Fox University, Newberg, OR.

Wessman-Enzinger, N. M. (2023, October). *Imagination and mathematics.* Virtual *w*orkshop for National Council of Teachers of Mathematics.

Wessman-Enzinger, N. M. (2023, March). *Sabbatical research 2021-2022.* Presentation at George Fox University, Newberg, OR.

Wessman-Enzinger, N. M. (2023, January). *Grade 5 students' invented negative integer multiplication strategies.* Presentation at George Fox University, Newberg, OR.

Wessman-Enzinger, N. M. (2022, December). *Young mathematicians' integer reasoning and invented notations.* Virtual presentation at Pacific Norwest Math Education group.

Wessman-Enzinger, N. M. (2021, February). *Exploring the ways children unpack learner-generated integer drawings.* Virtual presentation at Illinois State University, Normal, IL.

Wessman-Enzinger, N. M. (2017, March). *Integers: A space for mathematical play.* Presentation at The Metropolitan Mathematics Club of Chicago, Chicago, IL.

Wessman-Enzinger, N. M. (2014, November). *Integer ignite*. Presentation at The Metropolitan Mathematics Club of Chicago, Elk Gove Village, IL.

Wessman-Enzinger, N. M. (2013, October). *Context and negative integers: More than a pedagogical tool*. Presentation at Eastern Illinois University, Charleston, IL.

Wessman-Enzinger, N. M. (2012, April). *Subtraction algorithms from the 1700s to the 1900s*. Presentation at University of St. Francis, Joliet, IL.

Wessman, N. M. (2008, December). *Technology in the secondary mathematics classroom*. Presentation at Olivet Nazarene University, Bourbonnais, IL.

## TEACHING EXPERIENCE HIGHLIGHTS

**George Fox University, Newberg, OR** 2015 – present
**Associate Professor of Education**
MATH 170: Why Math Matters (developed for George Fox Digital)
MATH 180: College Algebra (Mathematics Department)
MATH 202: Calculus II (Mathematics Department)
MATH 211: Foundations of Elementary Mathematics I (Mathematics Department & Undergraduate Teacher Education)
MATH 212: Foundations of Elementary Mathematics II (Mathematics Department & Undergraduate Teacher Education)
EDUC 250: Teaching as a Profession (Undergraduate Teacher Education)
EDUC 343: Adventures in Mathematics & Science I (Undergraduate Teacher Education)
EDUC 344: Adventures in Mathematics & Science II (Undergraduate Teacher Education)
EDUC 375: Practicum I (Undergraduate Teacher Education)
EDUC 475: Practicum II (Undergraduate Teacher Education)
ELED 343: Adventures in Mathematics & Science I (Adult Degree Program)
ELED 344: Adventures in Mathematics & Science II (Adult Degree Program)
ELED 4XX: Geometry for Teachers (developed for Adult Degree Program)

GEED 365: Cross-Cultural Experience: International
MEDU 510: Foundations of Educational Practice (Masters in Education)
MEDU 530: Quantitative and Qualitative Research Methods (Masters in Education)
MAT 553: Pedagogy–Mathematical Thinking for K–5 (Masters of Arts in Teaching)
MAT 554: Pedagogy–Mathematical Thinking for K–8 (Masters of Arts in Teaching)
MAT 576: Practicum II (Masters of Arts in Teaching)
EDDL 796: Research Literacy (Educational Leadership Doctoral Program)

**Illinois State University, Normal, IL** 2012 – 2015
**Instructor**
MATH 130: Dimensions of Numerical Reasoning I
MATH 152: Structure of Numerical Systems II
MATH 201: Teaching Mathematics in Elementary School

**Olivet Nazarene University, Bourbonnais, IL** 2010 – 2012
**Assistant Professor of Mathematics**
MATH 111 & 112: Mathematics for Elementary Teachers I & II
MATH 117: Finite Mathematics
MATH 120: Statistics
MATH 147 & 148: Calculus I & II
MATH 450: Senior Seminar in Mathematics
Observed & co-taught in the Secondary Mathematics Methods Course
Freshmen Connections Mentor

**Olivet Nazarene University, Bourbonnais, IL** 2010
**Adjunct Professor**
MATH 117: Finite Mathematics

**Kankakee Community College, Kankakee, IL** 2010
**Adjunct Professor**
MATH 2515: Calculus and Analytic Geometry I

**Joliet Junior College, Joliet, IL** 2009
**Adjunct Professor**
MATH 171: Calculus with Analytic Geometry II

**Herscher High School, Herscher, IL** 2005 – 2010

**High School Mathematics Teacher**
Comprehensive Mathematics
Business Mathematics
Geometry
Algebra I & II
Analytic Geometry
Calculus & Analytic Geometry I (dual-credit)
Advanced Placement Statistics
Coached Mathematics Team
Coached Competitive Cheerleading

## SERVICE TO COMMUNITY

**Kindergarten volunteer at Veritas School** 2023 – 2024
Volunteered every Thursday (10 am to noon) during the 2023-2024 AY
Did recess duty and aided with stations (math, science, reading, art) in class

**Nellie Muir Elementary School, Woodburn, OR** October 2022, April 2023, October 2023, & April 2024
**Hosted Family Math Nights for K–5 students**
Supported prospective teachers in Math 211/212 course for preparing stations and working with children

**Mathematics and Joy Professional Development, Woodburn, OR** August 2023
Facilitated professional development on supporting joy and mathematical games for all teachers at Nellie Muir Elementary School

**Newberg Community Math Walk** September 2020 & September 2022
Coordinated an outdoor math walk (with sidewalks, chalk, and Flipgrid) near the Newberg Public Library to help support remote learning for the public schools

**Math Camp at George Fox University** April 2017
Volunteer prospective teachers and myself hosted a math camp on a Saturday for fifth graders from North Marion School District

**North Marion Intermediate School, Aurora, OR** 2018 – 2020
**Hosted Family Math Night for Grades 3–5 Students**

Prospective teachers in Math 211 course prepared stations and worked with children

**Volunteer at Spring Family Math night** Spring 2019
Prospective teachers in the MATH 212 course volunteered and ran stations at a large family math night to the community

**Crater Elementary School, Newberg, OR** 2016 – 2020
Organizer of Family Math Nights for Grades 3–5 Students (Fall) and Grades K–2 Students (Spring)

**STEM Panelist** October 2015
Chehalem Cultural Center
http://www.pamplinmedia.com/nbg/241-education/273968-149836-big-dreams-aims-to-inspire-girls-and-young-women

**Discussant** September 2015
Chehalem Cultural Center for the talk-back at the play "Proof"

**Math Circle** 2015 – 2016
Oregon Mathematics Network Math Circle Participant

**Dwight Grade School, Dwight, IL** 2013 – 2015
**Volunteer in Fourth & Fifth Grade**
Taught and co-taught mathematics lessons
Implemented Number Talks

**Herscher Grade School, Herscher, IL** 2013 – 2015
**Volunteer at Math Fair for K–8 Students**
*March 2013:* Constructing popcorn containers to maximize volume with a fixed surface area
*April 2014:* Card game for integer addition and subtraction
*April 2015:* Card game for integer addition and subtraction

**Herscher Middle School, Herscher, IL** 2011 – 2012
**Volunteer in Sixth Grade**
Taught and co-taught mathematics lesson
Worked with RTI groups

**Kankakee Trinity Academy, Kankakee, IL** 2011
**Volunteer**

*May 2011:* Worked with fifth grade students, taught and co-taught mathematics lessons
*December 2011:* Organized and hosted a math fair for K–5 with pre-service elementary teachers from Olivet Nazarene University

**El Jardín del Amor y de la Esperanza** 2011 – 2016
**Santa Barbara, Honduras**
**Mission Trip Leader & Volunteer**
*March 2011:*
Aided in the launch of the orphanage the first week it opened
Assisted in construction work and painting
Assisted in English education to adults
Co-led a group of twenty university students
*March 2012:*
Participated in construction work and painting,
Co-taught art, bible, and ESL classes
Helped students with math homework
Co-led a group of twenty university students
*June 2013:*
Taught and tutored bible and mathematics in Spanish to children from ages five to twelve
Assisted with leadership at the orphanage
Visited homes and schools
*June 2014:*
Taught and tutored mathematics in Spanish to children from ages five to twelve
Developed a teacher evaluation tool
Led a professional development on short-term/long-term lesson planning
*May 2015:*
Co-lead a group of undergraduate students to the orphanage & facilitated youth camp
*June 2016:*
Taught Bible, English, and Mathematics

## SERVICE TO UNIVERSITY

Personnel faculty council representative & Personnel committee co-chair Fall 2023 – present

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|---|---|
| Richter committee member | 2016 – present |
| Teacher education committee member | 2016 – present |
| Dissertation advisor to Amanda Davidson | 2023 –2024 |
| Dissertation advisor to Stefanie Baker | 2023 – present |
| Richter scholar faculty advisor (Alex Bledsoe/Debban) | Summer 2022 |
| Richter scholar faculty advisor (Clara Stilwell) | Summer 2021 |
| Richter scholar faculty advisor (Sailer Galusha-McRobbie) | Summer 2020 |
| "Building a writing house with a strong BASE:<br>Strategies for successful scholarship" Workshop for Spring Faculty Development | Spring 2020 |
| Advisor to 2024 cohort of elementary education Majors<br>Met with about 12–24 elementary education majors individually & regularly each academic year<br>Provided recommendations on course load<br>Answered questions about profession and program<br>Mentored students throughout the yea<br>Oversaw student teaching experience | 2020 – 2024 |
| Clarinetist in GFU Orchestra | 2019 – 2020, Spring 2024 |
| Faculty senate | 2019 – 2023 |
| GFU dissertation committee reader (Elaine Tinholt, "A Cross-study Exploration of Experiences of Induction Level Teachers Identified as Teacher Leaders) | 2019 – 2020 |
| Mathematics search committee | Fall 2019 |
| Grant writing faculty development oresentation at GFU fall conference | Fall 2018 |
| Strategic planning committee | Fall 2018 |

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|---|---|
| Undergraduate research mentor (Kristina Hofer) | Fall 2017 |
| Richter scholar faculty advisor (Camilla Carpenter) | Summer 2017 |
| CAEP subgroup 4 committee | 2016 – 2019 |
| Undergraduate teacher education mathematics education position hiring committee | Fall 2018 & Spring 2019 |
| Undergraduate teacher education ESOL position hiring committee | 2017 |
| Advisor to 2019 cohort of elementary education Majors<br>Met with 30–40 elementary education majors individually & regularly each academic year<br>Provided recommendations on course load<br>Answered questions about profession and program<br>Mentored students throughout the year<br>Oversaw student teaching experience | 2015 – 2019 |
| Coordinate Fridays @ Fox for Undergraduate Teacher Education | 2018 – 2021 |
| **Genesis Advisor**<br>Advise incoming freshmen for coursework during summer | 2016 – 2019 |

## SERVICE TO PROFESSION

| | |
|---|---|
| **Editorial Board Member for *Investigations in Mathematical Learning* Journal**<br>Provide at least 3 quality reviews per year; Provide quality feedback on areas of expertise; Assist the VP for Publications and editors as needed to continue the journal's high quality. | 2024 – present |
| **External Dissertation Committee Member for Mahtob Aqazade at Purdue University**<br>"The Role of Language, Interactive Features, Context, and Stories in Students' Conceptions of Integers" | 2021 |

**Chair of Division C: Mathematics of American Educational Research Association** 2020
Assigned reviewers for papers, organized reviews, provided recommendations of acceptance, created session formats, and facilitated paper discussants

**Strand leader for 2016 Psychology of Mathematics Education North America (PME-NA) Conference** 2016
Assigned reviewers for papers, organized reviews, provided recommendations of acceptance

**Teachers of Teachers of Mathematics (TOTOM) President** 2015 – 2017
Organized 2017 TOTOM Conference hosted at George Fox University

**Professional Development Leader** 2014
"Día en Servicio: La Elaboración de Planes de Lecciones"
Professional Development Day
El Jardín de Amor y Esperanza | Santa Barbara, Honduras

"Number Talks & Mathematical Practices" 2014
Professional Development Day
Dwight Grade School, Dwight, IL

**Acknowledgements** 2014
Acknowledgement in *The Montana Mathematics Enthusiast* Monograph Special Issue: The Mathematical Content Knowledge of Elementary Prospective Teachers (Vol. 11, No. 2, p. 200)

Acknowledgement in STEM Student Research Handbook 2011
Harland, D. (2011) *STEM: Student research handbook*. Arlington, VA: National Science Teachers Association**.**

**Conference & Journal Reviewer**
*American Educational Research Association*
*Journal of Mathematical Behavior*
*Journal of Research in Mathematics Education*
*Teaching Children Mathematics*
*Mathematics Teaching in the Middle School*
*Mathematics Teacher*
*Mathematics Teacher: Learning and Thinking Pre-K–12*

*International Congress of Mathematics Education*
*Psychology of Mathematics Education*
*Psychology of Mathematics Education-North America*

## GRANTS

National Science Foundation COLLABORATIVE grant — November 2023
(pending)
"Collaborative Research: Design and Development of Learning Modules to Transition from Whole Number to Integer Understanding"
GFU: $384,191
Purdue: $633,589
University of Texas-Corpus Christi: $294,871
Total collaborative: $1,312,651

National Science Foundation COLLABORATIVE grant — October 2021
(not funded, competitive)
"Project Empower: Empowering Young Latinx Mathematicians with an Intellectually Honest Approach to Integers"
GFU: $595,515
Purdue: $880,266
Total collaborative: $1,475,741

National Science Foundation COLLABORATIVE grant — October 2020
(not funded)
"Building on Principles of Real Numbers to Strengthen Early Numerical Understanding (Project 'Keeping it Real')"
GFU: $408,350
Purdue: $1,425,286
Total collaborative: $1,833,636

Spencer Small Grant, $52,685.42 (not funded) — July 2020
"Empowering Latinx young mathematicians: Characterizing children's conceptions for group theory (Project Group $C_3$)"

Spencer Large Grant, $370,667.54 (not funded) — February 2020
"Leveraging relational thinking to investigate understanding of integer operations"

CPM Extensive Research Grant, $215,834.91 (not funded)

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|---|---|
| "Fidelity of instructional models and students' invented models for integer operations" | January 2020 |
| Spencer Small Grant, $49,161 (not funded) "Understanding group theory: Characterizing children's conceptions and conceptual change" | July 2019 |
| National Science Foundation CAREER grant, $602,321 (not funded) "CAREER: Empowering Students through Learner-Generated Drawings and Integer Understanding" | July 2019 |
| Summer Research Grant at George Fox University, $3,000 (GFU2019G05) "Children's Invented Strategies for Integer Multiplication" | Summer 2019 |
| National Science Foundation CAREER Grant, $601,662 (not funded) "CAREER: Empowering Students through Learner-Generated Drawings and Integer Understanding" | July 2017 |
| Research Leave Grant at George Fox University, Course Release, "The Conceptual Underpinnings of Pinterest Pins for Integer Addition and Subtraction" | 2017 – 2018 |
| Summer Research Grant at George Fox University, $3,000 "Prospective Teachers' Use of Chip Models and Number Line for Integer Addition and Subtraction Number Sentences" | Summer 2017 |
| Spencer Grant, $47,686 (not funded) "Children's Development of Analogies for Integer Addition and Subtraction" | February 2016 |
| Summer Research Grant at George Fox University, $3,000 "Children's Visual Mediators for Integer Addition and Subtraction" | Summer 2016 |
| Research Leave Grant at George Fox University, Course Release "Children's Use and Development of Number Line for Integer Addition and Subtraction" | 2016 – 2017 |
| Illinois State University Dissertation Completion Grant, $2,000 | 2014 – 2015 |

## LANGUAGES

Conversational Spanish

## PROFESSIONAL MEMBERSHIPS

| | |
|---|---|
| Member of The Research Council on Mathematics Learning | 2022 – present |
| Member of International Christian Community for Teacher Education | 2022 – present |
| Member of Association of Mathematics Teacher Educators | 2012 – present |
| Member of National Council Teachers of Mathematics | 2010 – present |
| Member of Teachers of Teachers of Mathematics | 2015 – present |
| Member of American Educational Research Association | 2014 – present |
| Member of TODOS: Mathematics for All | 2014 – 2019 |
| Member of the Mathematics Association of America | 2010 – 2014 |
| Member of Illinois Council of Teachers of Mathematics | 2007 – 2015 |
| Member of Metropolitan Mathematics Club | 2007 – 2015 |