NICOLE M. WESSMAN-ENZINGER, PHD

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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

Fulbright Specialist 2020

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)	2016
Scholarly Inquiry and Practice (SIP) Conference for Mathematics Methods Funded Participant	2015
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	2014
Illinois State Dissertation Completion Grant Recipient	2014 – 2015
O' Daffer Fellowship Recipient	2012
Illinois Section of the Mathematics Association of America (ISMAA) Project NExT Fellow	2010 – 2011
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

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., & Tobias, J. M. (2020). The dimensions of prospective elementary and middle school teacher's 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. (2019). Consistency of integer number sentences to temperature problems. *Mathematics Teaching in the Middle School, 24*(5), 267–272.

Wessman-Enzinger, N. M. (2019). 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. (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., 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

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, Corvallis, 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., 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. (2017, March). *Integers: A space for mathematical play.* Presentation will be 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
Assistant Professor of Education
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)
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)

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

Newberg Community Math Walk September 2020
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

Freshmen Elementary Education Advisor	Fall 2020 – present
Richter scholar faculty advisor (Sailer Galusha-McRobbie)	Summer 2020
"Building a writing house with a strong BASE: Strategies for successful scholarship" Workshop for Spring Faculty Development	Spring 2020
Clarinetist in GFU Orchestra	2019 – 2020
Faculty senate	2019 – present
GFU dissertation committee reader (Elaine Tinholt, "A Cross-study Exploration of Experiences of Induction Level Teachers	2019 – 2020

Identified as Teacher Leaders)

Grant Writing Faculty Development Presentation at GFU Fall Conference	Fall 2018
Strategic planning committee	Fall 2018
Mathematics search committee	Fall 2019
Undergraduate research mentor (Kristina Hofer)	Fall 2017
Richter scholar faculty advisor (Camilla Carpenter)	Summer 2017
Teacher education committee	2016 – present
Richter committee	2016 – present
CAEP subgroup 4 committee	2016 – 2019
Undergraduate teacher education ESOL position hiring committee	2017
Undergraduate teacher education mathematics education position hiring committee	Fall 2018 & Spring 2019
Advisor to 2019 cohort of elementary education Majors Met with 30–40 elementary education majors individually & regularly each academic year Provided recommendations on course load Answered questions about profession and program Mentored students throughout the year Oversaw student teaching experience	2015 – 2019
Genesis Advisor Advise incoming freshmen for coursework during summer	2016 – 2019
Education Department Fridays @ Fox Coordinator	Fall 2018 – present

SERVICE TO PROFESSION

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 2016

Strand leader for 2016 Psychology of Mathematics Education North America (PME-NA) Conference
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
"Día en Servicio: La Elaboración de Planes de Lecciones" 2014
Professional Development Day
El Jardín de Amor y Esperanza
Santa Barbara, Honduras

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

Acknowledgements

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

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

Journal Reviewer
Journal of Mathematical Behavior
Journal of Research in Mathematics Education
Teaching Children Mathematics
Mathematics Teaching in the Middle School
Mathematics Teacher

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

GRANTS

Spencer Small Grant, $52,685.42 (pending) 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) January 2020
"Fidelity of instructional models and students' invented models for integer operations"

Spencer Small Grant, $49,161 (not funded) July 2019
"Understanding group theory: Characterizing children's conceptions and conceptual change"

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 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 TODOS: Mathematics for All	2014 – present
Member of American Educational Research Association	2014 – present
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