

Rachel A. Harrington, PhD

3725 NW Van Buren Avenue
Corvallis, OR 97330
rachel.harrington@gmail.com
541 359 9531

Education

- Ph.D. 2008 Oregon State University (Corvallis, OR)
Major: Mathematics Education
Minor: Mathematics
Dissertation Title: *The Development of Pre-service Teachers' Technology Specific Pedagogy*
Dissertation Advisor: Dr. Margaret Niess
- M.S. 2007 Oregon State University (Corvallis, OR)
Major: Mathematics Education
Minor: Mathematics
Project Title: *Creating an Account of Institutional Practice: An Analysis of One Professional Licensure Program*
Project Advisor: Dr. Larry Enochs
- B.A.Ed. 1997 Western Washington University (Bellingham, WA)
Major: Mathematics Education
Minor: German

Professional Experience/Employment

Certification

- Initial Teaching License, Middle Level, High School: Advanced Mathematics
Oregon
2007-2009 (expired)
- Initial Teacher License, 4-12 Mathematics
Washington
1997-2001 (expired)

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Teaching and Research Experience

Professor of Mathematics Education: Teacher of mathematics education courses including methods, pedagogy and advanced strategies to undergraduate and graduate education majors. Coordinator of Master of Arts in Teaching Program (2010-2013) and Elementary Mathematics Specialist Program (2014-2024). Director of Center for the Advancement of Paraeducators (2019-present)

*Division of Teacher Education, Western Oregon University—Monmouth, OR
Fall 2008-present*

- ED 353: Elementary Mathematics Methods
- ED 434/534/669: Content Pedagogy I: Mathematics
- ED 436/534/669: Content Pedagogy II: Mathematics
- ED 453: Applied Human Learning: Mathematics
- ED 615: Critical Inquiry into the Foundational Narratives of Schooling
- ED 633: Research and Writing
- ED 637: Advanced Content Pedagogy: Mathematics
- ED 656: Professional Seminar I (MAT)
- ED 657: Professional Seminar II (MAT)
- ED 658: Professional Seminar III (MAT)
- ED 659: Professional Seminar IV (MAT)
- ED 609: Elementary Mathematics Leadership Practicum II
- ED 673: Elementary Mathematics Leadership Practicum I
- ED 607: Elementary Mathematics Leadership Project or Thesis
- CSE 624: Internet for Educators
- CSE 670: Teaching Content with Technology
- FY 207: First Year Seminar
- MTH 614: Statistics and Probability: K-8 Learning and Teaching Practices

Mathematics Instructor: Teacher of online, asynchronous mathematics courses.

*Department of Mathematics, Linn Benton Community College--Albany, OR
Winter 2025-present*

- MTH112Z: Precalculus II: Trigonometry

Professional Development Provider:

Corvallis School District, Corvallis, OR; 2016-2019; 2021-2023

Developed and delivered a collaborative model for implementing Universal Design and Differentiated Instruction in two heterogeneous, second grade classrooms. Planned activities, selected tasks, modeled instruction, analyzed data and assessed outcomes of the project. The project results were presented in collaboration with the classroom teachers at a district-wide workshop in April 2023. The results of the project were selected (7% acceptance rate) for a special issue of *Mathematics Teacher Educator* to be published in February 2024. I was invited to present the findings on a panel at the 2024 Annual Meeting of the Association of Mathematics Teacher Educators and at the 2024 Annual Meeting of the American Educational Research Association.

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Developed and delivered a yearlong professional development series to K-5 elementary teachers and specialists. The series included a three-day instructional strategies institute followed by a four-cycle professional learning community sequence delivered by classroom leaders mentored by me.

Developed and delivered a five cycle professional development series using instructional rounds to promote the NCTM Teaching Practices.

Developed and delivered a four cycle book club and workshop series for Educational Assistants in the district.

Research Fellow:

Math Learning Center, Portland, OR; 2020-2023

Independent contractor working on assigned projects related to current research in mathematics education. Projects included assessment analysis, leadership workshops, conference panels, and curriculum analysis.

Professional Development Provider:

Petersburg School District, Petersburg, AK; 2020-2021

Developed and delivered a six day professional learning experience for teachers to support new curriculum adoption (Bridges/Number Corner) in grade K-5. Topics centered on differentiation and assessment. All content was delivered through synchronous online instruction using Zoom.

Professional Development Provider:

Woodburn School District, Woodburn, OR; 2014-2016, 2019

Developed and delivered a 23-day professional development series to middle and high school mathematics teachers. The series included a five-day instructional strategies institute, followed by a three-cycle lesson study sequence embedded in the teachers' classrooms. Designed and delivered follow-up session for middle school teachers in Summer 2016.

Provided professional evaluation of all in-district elementary mathematics professional development. Worked with leaders and district staff to revise resources, analyze data, and assist in goal setting for the district.

Field Experience Supervisor:

Division of Teacher Education, Western Oregon University, Monmouth, OR;

Supervised prospective mathematics education students in a professional licensure program during practicum and student teaching experiences; advised and approved lesson plans, observed teaching, and completed mandatory assessments;

-ED 412: Term III Supervision

-ED 609, 616, 697: Term II, III, and IV Supervision

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Instructor:

*Department of Science and Math Education, Oregon State University, Corvallis, OR
Department of Teacher and Counselor Education, Oregon State University-Corvallis, OR
2008-2011*

Instructor for online teacher education courses for practicing mathematics teachers of grades K-12.

- TCE 553: Critical Issues in Teaching and Learning Mathematics
- SED 594: Advanced Strategies: Mathematics

Graduate Teaching Assistant:

*Department of Science and Math Education, Oregon State University, Corvallis, OR
2004-2008*

Instructor for prospective mathematics and science education students in a professional licensure program, designed syllabi, delivered class instruction, responsible for all assessments

- SED 572: Mathematics Technology and Pedagogy II
- SED 576: Mathematics Pedagogy II
- SED 509: Summer Practicum (co-taught)
- SED 508: Integrating Mathematics Process Standards into Mid-Level Mathematics (co-taught)
- MTH 508: Mathematics Process Standards (co-taught)
- SED 552/553: Math & Science Methods/Practicum (co-taught in 2005, assisted course instructor in 2004)

Field Experience Supervisor:

*Department of Science and Math Education, Oregon State University, Corvallis, OR
2004-2006*

Supervised prospective mathematics education students in a professional licensure program during practicum and student teaching experiences; advised and approved lesson plans, observed teaching, and completed mandatory assessments;

Professional Development Provider:

Clarion University, Clarion, PA 2001-2004

Developed and delivered a variety of workshops for university faculty, in-service teachers, and pre-service teachers; topics focused on effective integration of technology tools and instructional software into K-12 instruction

- Technology in My Classroom
- Building Your Electronic Portfolios Using Adobe Acrobat
- Using Kidspiration and Inspiration to Enhance Instruction
- Designing Effective PowerPoint Presentations
- Creating Teacher WebPages
- Going on a WebQuest
- Technology for the Foreign Language Teacher
- Using Technology in the Reading Classroom

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Substitute Teacher:

Junction City School District; Junction City, OR, 2006-2009

Short-term substitute teacher in all subjects for 5th through 8th grade.

- Mathematics-all grades including special education
- Self-contained-5th and 6th grade
- Social Studies-7th grade
- Science-8th grade
- Music-all grades
- Special education-all grades including class for students with autism spectrum disorders

High School Mathematics Teacher:

Sehome High School, Bellingham, WA, 1997-2001

Taught courses ranging from pre-Algebra to pre-Calculus in a public high school; led the department in integrating graphing calculators and computer software to create a dynamic curriculum emphasizing graphic, algebraic, and numeric solutions to every problem

- Pre-Algebra
- Algebra I
- Geometry
- Trigonometry/Pre-Calculus
- Probability and Statistics

Educational Research Experience

[Toolkit for Enacting Digital Curricula \(TEDC Project\) \\$633,000; Rhine, S., Driskell, S., Harrington, R., & Wheeler, A.; Teacher Quality Partnership Program, US Department of Education. Four year grant to document ways that teachers use digital curriculum to meet the NCTM Standards for Mathematical Practice and Social Emotional Learning Standards. Western Oregon University-Monmouth, OR; 2023-2025](#)
-Collaborating Project Director

Developing Elementary Mathematics Instructional Leaders in Oregon (Cheryl Beaver PI; Rachel Harrington co-PI)-Three year Oregon Department of Education grant to support elementary teachers in earning their Elementary Mathematics Instructional Leader Specialization.
Western Oregon University-Monmouth, OR; 2015-2018
-Collaborating Project Director
-Instructor

The Algebraic Thinking Project: Utilizing Research and New Technologies to Overcome the Research Barrier (Steven Rhine, PI; Rachel Harrington Sub-Award PI)-Three year FIPSE grant to improve algebra instruction; partnership between Willamette University, Western Oregon University, George Fox University and Pacific University
Western Oregon University-Monmouth, OR; 2010-2014
-Collaborating Project Director
-Team Leader

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Undergraduates Learning from Research: (Rachel Harrington and Adele Schepige, co-PIs)-Analyzed student in-class and out-of-class work to determine what, if anything, students learn from reading educational research

Western Oregon University-Monmouth, OR; 2009-2010

-Co-Principal Investigator

Oregon ESEA Title IIB MSP: Central Oregon Consortium (Maggie Niess & Tevian Dray, co-PIs) – interviewed past participants in order to understand how professional development opportunities influence beliefs and practice

Oregon State University – Corvallis, OR; 2006-2008

-Graduate Research Assistant

Researching Mathematics Leaders' Learning (Rebekah Elliott and Judy Mumme, co-PIs) – assisted in development of a research protocol and data collection in order to understand how leaders of professional development can learn from the practice of peers

Oregon State University – Corvallis, OR; 2005-2006

-Graduate Research Assistant

Pennsylvania Preparing Tomorrow's Teachers to Use Technology Catalyst Grant (Sonja V. Heeter, PI)– developed and coordinated all aspects of local (Clarion University) grant activities including mini-grants, professional development, summer camps, and course development (<http://www.clarion.edu/academic/ec17/Technology/technology.htm>)

Pennsylvania State System of Higher Education – Harrisburg, PA

2001-2004

-Area Outreach Coordinator

Scholarly Production¹

Publications

[Harrington, R. & Rhine, S. \(2024\). 3x5 is greater than 15. *The Oregon Math Teacher*. Summer, p. 28-31.](#)

Rhine, S., Driskell, S., Harrington, R., & Wheeler, A. (2024). Elementary mathematics digital curricula and the future of teacher education. In S. Oraki (Ed.) *Redesigning the Future of Education in the Light of New Theories, Teaching Methods, Learning, and Researches*. Information Age Publishing.

[Harrington, R. James, J. & Quinn, K. \(2024\). Six steps to surviving a teaching emergency. *Mathematics Teacher Educator*. 12\(2\). p. 163-175.](#)

¹ † Indicates a scholarly production that was done in collaboration with a student

[†Weber, M., Farnell, E. & Harrington, R. \(2024\). Games with Math: Escoba. *The Oregon Math Teacher*. Winter. p. 17](#)

[†Johnson, A. & Harrington, R. \(2023\). Games with Math: Bones. *The Oregon Math Teacher*. Fall.](#)

[†Detels, A., Ernest, J. & Harrington, R. \(2023\). Games with Math: Mastermind. *The Oregon Math Teacher*. Spring.](#)

[Wheeler, A., Harrington, R., Driskell, S., & Rhine, S. \(2023\). How Covid 19 changed our mathematics education instruction. *Journal of Mathematics Teacher Education in Texas \(JMTET\)*, 13\(2\).](#)

[Driskell, S., Wheeler, A., Harrington, R., & Rhine, S. \(2023\). Mathematics Teacher Educators' Migration to Emergency Remote Teaching During COVID-19. *Journal of Educational Research and Innovation \(JERI\)*, 11\(1\), 1-31.](#)

[Rhine, S., Driskell, S.O., Harrington, R., & Wheeler, A. \(2023\). Innovations to support elementary mathematics teachers navigating digital curricula \(Working Group\). In *Proceedings of the 45th Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Reno, NV. \(p. 1030\)](#)

[†McMillian, E., Phillips, K., & Harrington, R. \(2023\). Games with math: Blokus. *The Oregon Math Teacher*. Summer.](#)

[Harrington, R. \(2023\). Math games and games with math: Letting students struggle productively. *The Oregon Math Teacher*. Spring p. 17-19.](#)

[Harrington, R., Driskell, S. O., Wheeler, A. & Rhine, S. \(2022\). Connecting Problems of Practice to Technology Solutions During Emergency Remote Teaching. In *Proceedings of the 44th Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Nashville, TN. \(p. 2023\)](#)

[Harrington, R., Driskell, S.O., Wheeler, A.M. & Rhine, S. \(Summer, 2021\). Jamboards: A tool that stood the test of a pandemic. *Journal of Mathematics Teacher Education in Texas*. 11\(2\), 7-8.](#)

[Driskell, S.O., Harrington, R. Wheeler, A.M. & Rhine, S. \(2021\). Positive change in mathematics teacher educators' migration to emergency remote teaching during Covid-19. *Proceedings of the forty-third annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Philadelphia, PA. \(p.1769\)](#)

- [Caires-Hurley, J., Jimenez-Silva, M., & Harrington, R. \(2020\). Toward a Critical-PBL: Centering a critical consciousness in the middle grades. *Middle Grades Review* 6\(3\).](#)
- [Harrington, R., Beaver, C., & Burton, L. \(2020\). Breaking the ice with interesting mathematics. *The Oregon Mathematics Teacher*. May/June. p. 12-14.](#)
- [Harrington, R. & Peterson-Ahmad, M. \(September/October 2019\). Maximizing the use of paraprofessionals in math instruction: Ideas for preservice teachers. *The Oregon Mathematics Teacher*. p. 9-10.](#)
- [Harrington, R. & Rhine, S. \(2019\). Can we meet the Standards for Mathematical Practices with web-based curricula? *The Oregon Mathematics Teacher*. May/June. p. 8-9.](#)
- [Rhine, S., Harrington, R. & Starr, C. \(2018\). *How Students Think When Doing Algebra*. Information Age Publishing: Charlotte, NC.](#)
- Beaver, C., Burton, L. & Harrington, R. (2017). Leading the way to improved student achievement. *The Oregon Mathematics Teacher*. May/June 2017. p. 19-20.
- Harrington, R., Beaver, C. & Burton, L. (2017). Answering the call by developing an online elementary mathematics specialist program. *Journal of Mathematical Behavior*, 46C. p. 303-312.
- Harrington, R. (2017). How should I spend my \$.99? *The Oregon Mathematics Teacher*. January/February 2017. p. 7-9.
- Harrington, R., Driskoll, S., Johnston, C., Browning, C. & Niess, M.L. (2016). Technological pedagogical content knowledge: The preparation and support of mathematics teachers. In M.L.Niess, S. Driskoll, & H. Lee (Eds.), *Handbook of Research on Transforming Mathematics Teacher Education in the Digital Age*, Hershey, PA: IGI Global.
- Harrington, R.A. & Rhine, S. (2015). Digital tools for accelerating preservice teacher effectiveness. In M.L. Niess & H. Gillow-Wiles (Eds.), *Handbook of Research on Teacher Education in the Digital Age*. Hershey, PA: IGI Global.
- Rhine, S., Harrington, R., & Olszewski, B. (2015). The role of technology in increasing preservice teachers' anticipation of students' thinking in algebra. *Contemporary Issues in Technology and Teacher Education*, 15(2).
- Rhine, S. & Harrington, R. (2014). What makes a good app for learning mathematics? *The Oregon Mathematics Teacher*, September/October, 14-15.
- Beaver, C., Harrington, R.A. & Kruczek, K. (2013). The mathematics for middle school teachers program at Western Oregon University. In L. Burton, C. Beaver, & K.

- Kruczek (Eds.), *Resources for Training Middle School Teachers*. Washington, DC: Mathematical Association of America.
- Rhine, S., Charles, M., Harrington, R.A., Samek, L., & Starr, C. (2011). *The encyclopedia of algebraic thinking*. Salem, OR: The Center for Algebraic Thinking. Retrieved from <http://www.algebraicthinking.org/wiki/encyclopedia-algebraic-thinking>, November 7, 2016.
- Harrington, R.A. & Enochs, L.G. (2009). Accounting for preservice teachers' constructivist learning environment experiences. *Learning Environments Research*, 12(1), 45- 65.
- Ronau, R. N., Niess, M. L., Browning, C., Pugalee, D., Driskell, S.O., & Harrington, R. (2008). Framing the research on digital technologies and student learning in mathematics. In L. Bell, L. Schrum, & A. D. Thompson (Eds.), *Framing Research on Technology and Student Learning in the Content Areas: Implications for Educators* (pp. 13-31). Charlotte, NC: Information Age Publishing.
- Harrington, R.A. (2007). Using data to improve effort. *The Oregon Mathematics Teacher*. September/October 2007. p. 34-37.
- Downie, K., Harrington, R., Monosky, D., Reagle, J, Stein, I., Wolf, M., Wolfrom, K., Wynkoop, S., & Zimmerman, K. (2005). *Paraprofessional Workshop Series Manual*. Acton, MA: Copley Publishing.
- †Harrington, R.A. & Beaufort, C. (2003) The Spanish e-book project. *Pennsylvania Language Forum*. 73(1). p.63-65.
- Serfozo, J., Jacobson, M., Harrington, R., Atkins, A., & Bos, C. (1997). *You thought you had problems: A compilation of problems for extension and enrichment of mathematics*. Bellingham, WA: A Goals 2000 Project.

Supervised Student Publications

- Tamargo, V. (Jan/Feb, 2019). With expanded curriculum options, what is the role of the teacher? *The Oregon Mathematics Teacher*. p. 20-22.
- Harris, K. (March/April, 2018). Enhancing the “engage” in Engage New York. *The Oregon Mathematics Teacher*. p. 35-38.
- Mack, C & Shaffer, F. (Nov/Dec, 2017). A lesson in elementary synergy: Co-teaching a group-worthy task. *The Oregon Mathematics Teacher*. p. 33-35.
- Little, M. (March/April, 2017). First grade family math project. *The Oregon Mathematics Teacher*. p. 33-35.

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Little, M. (Jan/Feb, 2017). Let their stories be your guide. *The Oregon Mathematics Teacher*. p. 33-35.

Berry, S., Kemhus, J., & LaPlante, L. (March/April, 2010). The factor master cipher. *The Oregon Mathematics Teacher*. p.33-35.

Aas, T. (December, 2009). How many 5-liter buckets of water are needed to fill the classroom? *The Oregon Mathematics Teacher*. p. 26.

Kostrba, H. (September 2009). Literacy in mathematics. *The Oregon Mathematics Teacher*. p.29-32.

National/International Presentations

Elevating Teacher Voice in Mathematics Teacher Education: Innovations in Professional Development Contexts. Steele, M., Johnson, K., Wager, A., Caldwell, B., Vescio, J., Harrington, R. & Brown, K.C. Annual Conference of the Association of Mathematics Teacher Educators, Orlando, FL, (February 2024)

...AND Inclusion: What Are We Doing To Prepare Our Teachers? Harrington, R., Rhine, S., Seller, C. & Driskell, S.O. Annual Conference of the Association of Mathematics Teacher Educators, Orlando, FL, (February 2024)

There and Back Again: Discussing the Residual Impact of Emergency Remote Teaching. Rachel Harrington, Shannon O Driskell, Ann Wheeler and Steve Rhine. Twenty-Sixth Annual Conference of the Association of Mathematics Teacher Educators, New Orleans, LA, (February 2023)

Implementing Digital Curricula in Elementary Mathematics Classrooms: Discussion of a Case Study. Steve Rhine, Shannon O Driskell, Ann Wheeler & Rachel Harrington. Twenty-Sixth Annual Conference of the Association of Mathematics Teacher Educators, New Orleans, LA, (February 2023)

Technologies Used to Support Problems of Practice During Emergency Remote Teaching. Rachel Harrington, Ann Wheeler, Shannon O Driskell, and Steve Rhine. 44th Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education, Nashville, TN (November 2022)

Invited Panel Presentation. Math Learning Center Fall Intervention Leadership Conference, Phoenix, AZ. (October 2022).

Technologies that impact COVID-19 instruction and beyond. Annual Conference of the Association of Mathematics Teacher Educators. Ann M Wheeler., Shannon O Driskell, Rachel Harrington and Steve Rhine. Las Vegas, NV. (February 2022)

[Positive Change in Mathematics Teacher Educators' Migration to Online Teaching During COVID 19. Shannon Driskell, Rachel Harrington, Steve Rhine and Ann Wheeler. *F43rd Annual Meeting the North American Chapter of the International Group for the Psychology of Mathematics Education*. Philadelphia, PA.](#)

[**What Remains After the Virus Goes?** Rachel Harrington, Steve Rhine, and Shannon Driskell; Twenty-Fifth Annual Conference of the Association of Mathematics Teacher Educators, Virtual, \(February 2021\)](#)

[**Lessons Learned from Mathematics Teacher Educators' Migration to Online Teaching During COVID-19** Shannon Driskell, Rachel Harrington, and Steve Rhine. Twenty-Fifth Annual Conference of the Association of Mathematics Teacher Educators, Virtual, \(February 2021\)](#)

[**Enactment of Digital Curricula in Elementary Classrooms and Impact on Mathematical Practices;** co-presenter; Shannon Driskell, chair; 41st Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education St Louis, MO \(November 2019\)](#)

[**Enactment of Digital Curricula in Elementary Classrooms and Its Impact on Mathematical Practices;** co-presenter; Steve Rhine, chair; Association of Mathematics Teacher Educators Conference, Orlando, FL \(February, 2019\)](#)

Teacher Preparation Response to the Surge of Web-based Mathematics Curricula Resource; co-presenter; Shannon Driskell, chair; Association of Mathematics Teacher Educators Conference, Houston, TX (February, 2018)

Transitioning an Idea Into an AMTE Publication: Getting Feedback co-presenter; Christine Browning, chair; Association of Mathematics Teacher Educators Conference, Houston, TX (February, 2018)

Designing and Delivering a Standards-Based Program to Authorize Elementary Mathematics Specialists Rachel Harrington & Cheryl Beaver; 38th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA), Tucson, AZ (November 2016)

Lessons Learned from an Online Elementary Mathematics Specialist Program Cheryl Beaver, Laurie Burton & Rachel Harrington; National Conference on Mathematics Coaching, Richmond, VA (June 2016)

What Makes Algebra Difficult for Some Students to Learn? Rachel Harrington & Steve Rhine, National Council of Teachers of Mathematics Annual Meeting and Exposition, Boston, MA (April 2015)

Learning Difficult Concepts in Algebra through iPad Apps Steve Rhine & Rachel Harrington, National Council of Teachers of Mathematics Annual Meeting and Exposition, Boston, MA (April 2015)

Isn't Technology Grand? Technology for Mathematics Educators Guest Blogger, South Dakota State University,
<http://mathtechsdsu.blogspot.com/2014/04/isnt-technology-grand.html> (April 2014)

Research, Technology, and Mathematics Methods Courses Webinar Steve Rhine and Rachel Harrington, <http://www.amte.net>. (March 2014)

Mathematical Apps: Babysitters, Manipulatives or Generators of Mathematics Rachel Harrington and Steve Rhine, Annual Association of Mathematics Teacher Educators Conference, Irvine, CA (February 2014)

The role of technology in increasing preservice teachers' anticipation of students' thinking in algebra Steve Rhine and Rachel Harrington, Annual Association of Mathematics Teacher Educators Conference, Irvine, CA (February 2014)

NTLI-Award Winning Papers from Content Areas: Research as a Basis for Increasing Preservice Teachers' Effective Formative Assessment Steve Rhine, Rachel Harrington, and Brandon Olszewski, 25th Annual International SITE Conference (Society for Information Technology and Teacher Education), Jacksonville, FL, March 2014

Research on Students' Algebraic Thinking: What is Useful for Teachers? Steve Rhine and Rachel Harrington, Annual Meeting of the Psychology of Mathematics Education-North America, Kalamazoo, MI (November 2012)

Developing and Enhancing Teacher's TPACK Shannon Driskell, Rachel Harrington, Maggie Niess, Christine Browning, & Chris Johnson, National Council of Teachers of Mathematics Research Pre-session, Indianapolis, IN (April 2012)

What Belongs on a Reading List in a Methods Course? Rachel Harrington & Sunshine Campbell, 15th Annual Association of Mathematics Teacher Educators Conference, Irvine, CA (January 2011)

Preparing teachers to integrate technology in teaching mathematics: What the research tells us Shannon Driskell, Rachel Harrington, Maggie Niess, Christine Browning, & Chris Johnson, 15th Annual Association of Mathematics Teacher Educators Conference, Irvine, CA (January 2011)

What Should Pre-service Teachers Read and What Do They Learn From It? Rachel Harrington & Sunshine Campbell, 14th Annual AMTE Conference (Association of Mathematics Teacher Educators), Irvine, CA, January 2010

NTLI-Award Winning Papers from Content Areas: Using the Ideas of Pre-Service Teachers to Understand Technology Specific Pedagogy Rachel Harrington; 20th Annual International SITE Conference (Society for Information Technology and Teacher Education), Charleston, SC, March 2009

Mathematics Teacher TPACK Standards and Revising Teacher Preparation Society for Information Technology and Teacher Education Conference, Charleston, SC, panel presentation, March 2009.

Using the Ideas of Pre-Service Teachers to Understand Technology Specific Pedagogy Rachel Harrington, 13th Annual AMTE Conference (Association of Mathematics Teacher Educators), Orlando, Florida, February 2009

A Collaborative Model For Developing In-Service And Pre-Service Teachers' Ability To Effectively Integrate Technology Into Mathematics Instruction Rachel Harrington, 12th Annual AMTE Conference (Association of Mathematics Teacher Educators), Tulsa, Oklahoma, session presentation, January 2008.

After Time Passes, What Remains of Professional Development? Maggie Niess, Rachel Harrington & Tina Johnston, 12th Annual AMTE Conference (Association of Mathematics Teacher Educators), Tulsa, Oklahoma, session presentation, January 2008.

Creating an Account of Institutional Practice: An Analysis of One Teacher Education Program Rachel A. Harrington, Annual Meeting of the American Educational Research Association, paper presentation, Chicago, IL, April 2007.

Podcast Interviews:

[Learning Targets. Rounding Up: An MLC Podcast.](https://www.mathlearningcenter.org/educators/podcast) (Nov 12, 2022)
(<https://www.mathlearningcenter.org/educators/podcast>)

Regional/Local Presentations:

[Invited IGNITE! Talk: Small Conversations.](#) Rachel Harrington Northwest Math Conference. Portland, OR. (October 2023)

[Crossing the Special Education Divide for Cognitively Appropriate Mathematics Instruction with Digital Curricula in Elementary School: A panel discussion.](#) Steve Rhine, Rachel Harrington & Cristy Sellers. Northwest Math Conference. Portland, OR. (October 2023)

[**A Deeper Dive into the Next Generation of Math Instructional Materials.** Steve Rhine & Rachel Harrington. Oregon Department of Education Webinar Series. \(January 2023\).](#)

[**Supporting Universal Design in a Second Grade Classroom.** Rachel Harrington. Corvallis School District. Corvallis, OR \(Multiple Dates, Winter 2023\).](#)

Introduction to *Bridges* and *Number Corner*. Rachel Harrington. Santiam Christian School District. Adair Village, OR. (Multiple Dates, Winter 2023)

Implementing *Bridges* and *Number Corner* in the K-5 Classroom. Rachel Harrington. Corvallis School District. Corvallis, OR (Multiple Dates, 2022-2023).

[**"Math Games" and "Games with Math": Letting students struggle productively.** Rachel Harrington and Susan Reeves. Northwest Math Conference. Tacoma, WA. \(October 2022\)](#)

[**Mistakes happen! What do we do next?** Rachel Harrington. Third Annual WOU Conference on Learning and Instruction for Paraeducators. Virtual Conference. \(August 2022\)](#)

Making lesson planning a little more manageable. Rachel Harrington. Twenty-fifth Annual Meeting of Oregon Association of Mathematics Teacher Educators. Virtual Conference. (February 2022)

Equitable mathematics practices in K-5. Rachel Harrington. Corvallis School District. Corvallis, OR. (Multiple Dates, Winter 2022)

Introduction to *Bridges* and *Number Corner*. Rachel Harrington. Corvallis School District. Corvallis, OR. (Multiple Dates, Fall 2021)

[**Asking good questions.** Rachel Harrington. WOU Conference on Learning and Instruction for Paraeducators. Virtual Conference. \(August 2021\)](#)

[**Re-Thinking Field Experience During Comprehensive Distance Learning** Courtney Fortenberry and Rachel Harrington. 24th Annual Conference of the Oregon Association of Teacher Educators, Virtual, \(February 2021\)](#)

Advancing Equitable Outcomes by Elevating Tasks and Teacher Moves, Part 1., Bridges Leaders Gathering, (Virtual Synchronous), February 13, 2021

Advancing Equitable Outcomes by Elevating Tasks and Teacher Moves, Part 2., Bridges Leaders Gathering, (Virtual Synchronous), February 27, 2021

Building Procedural Fluency from Conceptual Understanding, Corvallis School District, Corvallis, Oregon, December 20, 2020

Facilitating Meaningful Math Discourse, Corvallis School District, Corvallis, Oregon, December 5, 2020

Bridges Winter Check-In, Petersburg School District, Petersburg, Alaska; December 4, 2020 (Virtual Synchronous)

Facilitating Meaningful Math Discourse, Corvallis School District, Corvallis, Oregon, November 7, 2020

Bridges Fall Check-In, Petersburg School District, Petersburg, Alaska; October 9, 2020 (Virtual Synchronous)

Bridges Best Digital Practices Idea Sharing, Corvallis School District PD Fair, (Virtual Synchronous), September 2, 2020

Teachers: Getting Ready for 2020-2021, Petersburg School District, Petersburg, Alaska; August 24, 2020 (Virtual Synchronous)

Instructional Assistants: Getting Ready for 2020-2021, Petersburg School District, Petersburg, Alaska; August 20, 2020 (Virtual Synchronous)

NCTM Teaching Practices Introduction and Implementation, Petersburg School District, Petersburg, Alaska; April 29 & May 6, 2020 (virtual synchronous)

Supporting Productive Struggle, Corvallis School District, Corvallis, Oregon, March 5, 2020

Implementing Tasks that Promote Reasoning and Problem Solving, Corvallis School District, Corvallis, Oregon, February 6, 2020

Implementing Tasks that Promote Reasoning and Problem Solving, Corvallis School District, Corvallis, Oregon, January 16, 2020

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[**How High Leverage Teaching Practices \(HLPs\) Can Support Student Learning in Mathematics**, Maria Peterson-Ahmad & Rachel Harrington, WOU Conference on Learning and Instruction for Paraeducators. Monmouth, OR. \(August 2019\)](#)

[**Breaking the Ice with Interesting Mathematics** Rachel Harrington, Cheryl Beaver & Laurie Burton, Northwest Mathematics Conference, Seattle, WA \(October 2019\)](#)

Professional Development in Math: The Importance of Professional Development for Paraprofessionals Rachel Harrington & Maria Peterson-Ahmad, Oregon Association of Teacher Educators Conference, Portland, OR (March 2019)

What Does It Mean to be a K-8 Math Leader? Rachel Harrington, Cheryl Beaver & Laurie Burton. Northwest Mathematics Conference, Portland, OR (October 2017)

What's New in K-8 Mathematics Education? Session Chair: Rachel Harrington; Presenters were EMIL graduates; Northwest Mathematics Conference, Portland, OR (October 2017)

Sheltered Instruction in the time of Next Generation Science and Math Lena Bacum, Rachel Harrington & Kevin Carr, State English Learners Alliance Conference, Eugene, OR (April 2017)

Elementary Mathematics Professional Development Series Rachel Harrington, Corvallis School District, Corvallis, OR (August 24-26, 2016)

Best Practices in Middle School Mathematics Rachel Harrington, Woodburn School District, Woodburn, OR (June 21-24, 2016)

Mathematics and the English Language Learner Rachel Harrington, Project SPELL Woodburn School District, Woodburn, OR (May 2016)

Mathematics and the English Language Learner Rachel Harrington, Project SPELL Salem-Kaizer School District, Salem OR (May 2016)

Understanding and Applying TPACK in Methods Courses Gregory Zobel and Rachel Harrington, Oregon Association of Teacher Educators, Monmouth, OR (February 2016)

Integrating the Five Practices into Mathematics Instruction Rachel Harrington & Cheryl Beaver Project, DEMILO, Monmouth and Newport, OR (June 2015)

Mathematics and the English Language Learner Rachel Harrington, Project SPELL, Woodburn and Salem, OR (May, 2015)

Planning for Language in the Mathematics Performance Tasks Rachel Harrington, Project SPELL/LUISA Annual Conference, Monmouth, OR (February 2015)

Rachel A. Harrington, PhD

Teaching STEM From Your Toybox Rachel Harrington, Northwest Mathematics Conference, Portland, OR (October 2014)

Ideas for Engaging with the CCSS Rachel Harrington, Teachers of Teachers of Math (TOTOM), Monmouth, OR (September 2014)

Middle/High School Mathematics Professional Development Series Rachel Harrington, Woodburn School District, Woodburn, OR (August 2014-June 2015)

Mathematics and the English Language Learner Rachel Harrington, Project SPELL Woodburn School District, Woodburn, OR (May 2014)

Mathematics and the English Language Learner Rachel Harrington, Project SPELL Salem-Kaizer School District, Salem OR (May 2014)

Teaching STEM From Your Toolbox Rachel Harrington, Project SPELL/LUISA Annual Conference, Monmouth, OR (April 2014)

Using iPads to Put the Thinking Back in Algebra Rachel Harrington, Northwest Mathematics Conference, Seattle, WA (October 2013)

Developing Common Assessments and Differentiated Instruction Rachel Harrington, Oaklea Middle School, Junction City, OR (December 2013)

Implementing The CCSSM Panel Discussion, Oregon Mathematics Leader Conference, Linfield, OR (August 2013)

Mathematics and the English Language Learner Rachel Harrington, Project SPELL Salem-Kaizer School District, Salem OR (June 2013)

Tools for Navigating the Common Core State Standards for Mathematics Rachel Harrington, Project SPELL/LUISA Annual Conference, Monmouth, OR (April 2013)

Mathematics and the English Language Learner Rachel Harrington, Project SPELL Woodburn School District, Woodburn, OR (April 2013)

Spending the Day with the CCSS Rachel Harrington, Corvallis School District, Corvallis, OR (February 2013)

Mathematics and the English Language Learner Rachel Harrington, Project SPELL Salem-Kaizer School District, Salem OR (April 2012)

iPad Show and Tell Bill Hamlin, Rachel Harrington, & Amanda Smith, Western Oregon University, Monmouth, OR, November 2011.

Rachel A. Harrington, PhD

More Than The Math Curse: Mining Great Literature for Mathematical Gems Rachel Harrington, Sunshine Campbell, Marie LeJeune, & Tracy Smiles, 2010 Northwest Mathematics Conference, Spokane, WA, October 2010.

Solving the Problem of Multiple Solutions Sunshine Campbell, Rachel Harrington & Allison Hintz, 2010 Northwest Mathematics Conference, Spokane, WA, October 2010.

Technology in the Classroom Rachel Harrington, 2010 Teachers Of Teachers Of Mathematics Conference, Western Oregon University, Monmouth, OR, September 2010

Western Oregon University's Pre-Service Middle School Mathematics Focus Laurie Burton & Rachel Harrington, 2010 Teachers Of Teachers Of Mathematics Conference, Western Oregon University, Monmouth, OR, September 2010

Carbon Footprint Calculators Global Climate Change Institute for Teachers (GeeIFT): Improving the Scientific Literacy of K-8 Teaching in the Pacific Northwest, Western Oregon University, Monmouth, OR June 2010

The Development of Pre-service Teachers' Technology Specific Pedagogy Rachel Harrington, COE Research Talk Series, Western Oregon University, Monmouth, OR, May 2010

Mathematical Tales: Bridging Math and Literacy Connections through Children's Literature Tracy Smiles, Marie LeJeune, & Rachel Harrington, 20th West IRA Regional Conference, Portland, OR, February 2010

A Model for Developing In-service and Pre-service Teachers' Technology Specific Pedagogy Rachel Harrington, Emerging Researchers' Conference on Teaching and Learning, session presentation, Corvallis, OR, November 2007.

PRGM—It's For More Than Just Crib Notes! Rachel Harrington, Northwest Mathematics Conference, session presentation, Bellevue, WA, October 2007.

†The Mathematics Of Culturally Significant Games Rachel Harrington & Michelle Vance, Northwest Mathematics Conference, workshop, Victoria, BC, October 2006.

Graduate Programs In Mathematics Education Rachel Harrington & Sunshine Campbell, Northwest Mathematics Conference, session presentation, Victoria, BC, October 2006.

Creating Learning Communities with the Summer Camp Model Sonja V. Heeter & Rachel Harrington, Pennsylvania Educational Technology Expo and Conference (PETE &C), Hershey, PA, session presentation, February 2004.

Rachel A. Harrington, PhD

In Search of the Technology Proficient Educator Sandi Sheppheard, Sonja V. Heeter & Rachel Harrington, Pennsylvania Educational Technology Expo and Conference (PETE &C), Hershey, PA, session presentation, February 2004.

†**The Allegheny-Clarion Valley Spanish e-Book Project** Rachel Harrington & Christina Beaufort, American Council on the Teaching of Foreign Language (ACTFL) National Conference, Philadelphia, PA, session presentation, November 2003.

Awards, Grants, Recognition

Awards & Recognition

2023-2024 T.H. Gentle Professor of Education. Western Oregon University Endowed Professor.

2019 Mario and Alma Pastega Award, Excellence in Scholarship for Western Oregon University.

2014 National Technology Leadership Initiative (NTLI) Fellowship for Mathematics (co-recipient with Rhine and Olszewski)

2009 National Technology Leadership Initiative (NTLI) Fellowship for Mathematics.

Faculty Development Award, Category I, Western Oregon University, 2008, 2009, 2010

Faculty Development Award, Category IV, Western Oregon University, 2008, 2018

Faculty Appreciation Night & Women's Volleyball Game, Western Oregon University, 2008

Certificate of Appreciation, Science and Mathematics Education Department, Oregon State University, 2007

Phi Kappa Phi Honor Society, inducted 2006

The Stanley E. Williamson Memorial Scholarship, Oregon State University, 2005

Grants

Toolkit for Enacting Digital Curricula (TEDC Project) \$633,000; Rhine, S., Driskell, S., Harrington, R., & Wheeler, A.; Teacher Quality Partnership Program, US Department of Education

2023 NWMC Student Travel Support; \$1,000.00; WOU Foundation Grant. PI: Rachel Harrington

Rachel A. Harrington, PhD

2022 NWMC Student Travel Support; \$1,000.00; WOU Foundation Grant. PI: Rachel Harrington

2021 Oregon Grow Your Own Grant: Rural Educators Pathway Program (RP3), Oregon Department of Education, Educator Advancement Council, \$291,495 (funded); Maria Dantas-Whitney and Kristen Pratt (co-directors). Mathematics education partner.

2020 Northwest Mathematics Conference -- WOU Mixer; WOU Foundation Competitive Grants Program; \$500

Developing Elementary Mathematics Instructional Leaders in Oregon (DEMILO) (Cheryl Beaver, PI; Rachel Harrington), Oregon Department of Education, \$1,000,000 (2014-present)

The Algebraic Thinking Project: Utilizing Research and New Technologies to Overcome the Research Barrier (Steven Rhine, PI; Rachel Harrington, Subaward PI), FIPSE, \$752,000 (WOU Sub-Award \$39,124) (2009-2014)

Northwest Mathematics Conference Student Travel Grants Western Oregon University Foundation Competitive Grants, \$1000 (2011)

Mathematics Education Publishing Retreat, Western Oregon University Foundation Competitive Grants, \$996 (2009)

Service

Professional Level Service

Recent Research Roundtable (R³) Planning Team for 2023 Northwest Math Conference. Portland, OR.

[2022 WOU Conference on Learning and Instruction for Paraprofessionals \(WOU-CLIP\), Conference Co-Chair](#)

Recent Research Roundtable (R³) Planning Team for 2022 Northwest Math Conference. Tacoma, WA.

Presidential Award for Excellence in Mathematics and Science Teaching Award. Oregon Selection Committee. Oregon Department of Education. 2019-2024.

Curriculum Reviewer. Mastory: Storyline Mathematics. <https://mastory.io/2020-2021> WOU Homework Help Coordinator; Served over 600 K-12 students from around the PNW; Provided field experiences for six WOU classes and over 20 pre-education students.

[2021 WOU Conference on Learning and Instruction for Paraprofessionals \(WOU-CLIP\), Conference Chair](#)

[2020-2021 WOU Homework Help Coordinator; Served over 600 K-12 students from around the PNW; Provided field experiences for six WOU classes and over 20 pre-education students.](#)

Rachel A. Harrington, PhD

2019 WOU Conference on Learning and Instruction for Paraprofessionals (WOU-CLIP), Conference Co-Chair

2017-2020 *Contemporary Issues in Teaching and Technology Education*-Math Editorial Panel

2020, 2017, 2014, 2011 Northwest Mathematics Conference Planning Team, Member

2017 edTPA Secondary Mathematics Scorer

2016 Oregon Department of Education Adaptive Mathematics Pilot Grants, Reviewer

2016, 2014 Oregon Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST), Reviewer

2014-2019, Board of Directors, Center for Algebraic Thinking

15th Annual Association of Mathematics Teacher Educator Conference Volunteer, 2010-2011

Tenure File Reviewer for Dr. Steven Rhine, Willamette University, 2011

Regional Mathematics Education Book Club Coordinator, 2009-2011

Emerging Researchers' Conference on Teaching and Learning, Oregon State University, Planning Committee and Program Chair, 2007

Memberships

- National Council of Teachers of Mathematics (NCTM) 2015 to present
- Association of Mathematics Teacher Educators (AMTE), 2007 to present
- Teachers Of Teachers Of Mathematics (TOTOM), 2009 to present
- Oregon Council of Teachers of Mathematics (OCTM), 2007 to present
- American Educational Research Association (AERA), 2005-2009, 2011

Publication and Presentation Reviewer

- Psychology of Mathematics Education –North America (PME-NA proposal reviewer), 2012, 2016
- Association of Mathematics Teacher Educators (AMTE) proposal reviewer, 2008-2010, 2016
- 2015 *Handbook of Research on Transforming Mathematics Teacher Education in the Digital Age*, Reviewer
- 2015 *Handbook of Research on Transforming Mathematics Teacher Education in the Digital Age*, Editorial Advisory Board
- 2014 *Handbook of Research on Teacher Education in the Digital Age* Editorial Advisory Board
- Aspiring Academics, chapter review, 2008
- TACTL-SIG proposal reviewer, American Educational Research Association (AERA), 2008, 3 proposals
- Division K proposal reviewer, American Educational Research Association (AERA), 2008, 4 proposals

Institutional

Student Advising

- EMS Program Advisor (n=15)
- Undergraduate Academic Advisor (n=41)

Rachel A. Harrington, PhD

- Graduate Advisor (n=22)
- SOAR advisor, 2009-2011, 2015-2016
- MAT Graduate Project Advisor
 - Jesse Aitken, 2021
 - Tyler Bentley, 2015
 - Davie Siewell, 2015
 - Lindsay Androy, 2014
 - Greg Allen, 2014
 - Lacey King, 2014
 - Brent Murrell, 2014
 - Kirk Myrold, 2014
 - Stephanie Strasdin, 2014
- Honors Program Advisor
 - Sierra Fresh, Western Oregon University, 2018-2020
 - Alyssa Schmidt, Western Oregon University, 2010-2012
 - Stephanie Shields, Western Oregon University, 2008-2010
- MSED Thesis/Project Committee Chair
 - Emmaleigh Larson, 2023, *EMS Portfolio*
 - Tabatha Ridenour, 2023, *EMS Portfolio*
 - Stephnaie So, 2022, *EMS Portfolio*
 - Jenny McDaniel, 2022, *EMS Portfolio*
 - Rachel Holt, 2021, *EMS Portfolio*
 - Katie Mitchell, 2021, *EMS Portfolio*
 - Lydia Hodge, 2020, *EMIL Portfolio*
 - Katelyn Lindsey, 2020, *EMIL Portfolio*
 - Brian DeWolf, 2020, *EMIL Portfolio*
 - Matt Crichton, Western Oregon University, 2016
 - Justin Schepige, Western Oregon University, 2016
 - Kaitlin Hodgin, Western Oregon University, 2015, *EMIL Portfolio*
 - Lisa Stone, Western Oregon University, 2015, *EMIL Portfolio*
 - Xinjie Luo, Western Oregon University, 2014, *Comparison of Graduate School Education between China and the US*
 - Michael Jennings, Western Oregon University, 2013 *The Effectiveness Of Flipping One Trigonometry Class*
- Incoming, transfer and prospective student advising for mathematics licensure in all programs

Service to student clubs/organizations

- Mathematics Game Night, Club Ed, 2009
- Northwest Mathematics Conference student advisor, Western Oregon University, 2008, 2011

Department/division level service

Rachel A. Harrington, PhD

- DEL Coordinator Reassignment Project, Committee Member
- DEL Division PRC Committee Member 2013, 2022, 2023-present
- EMS Program Coordinator-Education, 2014-2022
- Peer Mentor, Jaclyn Caires-Hurley 2019
- Special Education Faculty Search Committee, Chair, 2015-2016
- Assessment Committee and EdTPA, Member, 2015, 2016
- Curriculum Committee, Member, 2015, 2016
- Peer Mentor, Josh Shulze 2016
- Online Teaching PLC Coordinator, 2016
- MAT Transcript Reviewer 2008-present
- EDTPA Mathematics Task 4 Online Module Development, 2015
- DTE Honors Project Committee Chair, 2014
- Team Leader, MAT March 2013 Cohort
- MAT Coordinator, 2011-2013
- DTE Graduate Committee, Member, 2010, 2011
- DTE Steering Committee, Member, 2011-2013; 2016
- MAT Applicant Interviewer, Western Oregon University, 2008-2011, 2015, 2016
- DTE Graduate Committee, Member, 2010, 2011
- DTE Admissions Committee, Member 2011
- DTE Information Technology Faculty Search Committee, Member, 2010, 2011
- COE, Licensure and Clinical Experiences Council, 2011
- AFT Division Representative, 2010
- Advising Guide Revision Committee Member, 2009
- Participant/Evaluator, ESOL faculty search, 2009
- Reform Curricula Library Development, Western Oregon University, 2008
- Undergraduate Applicant Interviewer, Western Oregon University, 2008, 2009, 2010, 2011
- MAT Applicant Interviewer, Western Oregon University, 2008-2011, 2015-present

University level service

- Faculty Senate Representative 2012-2014, 2019-2022
- General Education Committee 2016 to 2019
- Provost Search Committee, 2018-2019
- EMS Program Committee 2013-present
- Senate Graduate Committee, 2011-2012
- International Education Steering Committee, Secretary, 2010
- Institutional Review Board Committee, Member, 2010-2011
- CBEST Test Preparation Committee, Member & Presenter—Mathematics, 2009, 2010, 2011
- TSOAR/SOAR Faculty Advisor, 2009, 2010, 2011, 2020
- Joint Committee on Evaluations, Member, 2010, 2011
- Presenter, Sonia Kovalevksy Mathematics Day, 2010, 2011
- Judge, 2009 Oregon Junior Academy of Science Junior Science and Humanities Symposium, February 2009

Rachel A. Harrington, PhD

- Project Kaleidoscope (PKAL) Portland Regional Network, University of Portland, 2008

Public or Private Community Level Service

Volunteer

Six Grade Mathematics Teaching Assistant, Santiam Christian School, Corvallis, OR
2024-2025

Kindergarten Mathematics Teaching Assistant, Kathryn Jones-Harrison Elementary School,
Corvallis, OR, 2015- 2019

First Grade Mathematics Teaching Assistant, Kathryn Jones-Harrison Elementary School,
Corvallis, OR 2016-2017, 2022-2023

Invited Talks

Rachel Harrington-For the Love of Numbers Online interview, *Peas and Happiness*
(online parenting blog), retrieved from <http://peasandhappiness.com/?p=1318>, July 2011

Developing Early Numeracy Rachel Harrington, Linn Benton Community
College-Benton Center, Corvallis, OR, April 2010

Feeling Inspired? A Software Scavenger Hunt Rachel Harrington, Oaklea Middle
School, Junction City, OR, May 2008.

Collaborating to Develop Technology Specific Pedagogy Rachel Harrington, Science and
Mathematics Education Department, Oregon State University, departmental seminar,
January 2008.

**Analyzing Pre-service Teacher Preparation Experiences Within Constructivist
Learning Environments** Rachel Harrington, Science and Mathematics Education
Department, Oregon State University, departmental seminar, April 2007.

Celebrating Pi Day—Activities for all students Rachel Harrington, Science and Math
Investigative Learning Experiences (SMILE) Program, Oregon State University,
workshop, February 2007.

Dynamic Statistics Software For K-12 Mathematics Rachel Harrington, Science and
Mathematics Education Department, Oregon State University, departmental seminar,
October 2005.