

## Curriculum Vitae

# Sarah J. Selmer

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## EDUCATION

<b>West Virginia University</b>	Morgantown, WV	2008
Degree:	Doctorate in Curriculum and Instruction	
Dissertation:	The Human Experience: Changing Perspectives in Mathematics Education	
<b>Oregon State University</b>	Corvallis, OR	1997
Degree:	Master of Arts in Teaching	
	<ul style="list-style-type: none"><li>• Mathematics</li><li>• Computer Science, Business, and Technical Education</li></ul>	
<b>University of Oregon</b>	Eugene, OR	1994
Degree:	Bachelor of Science	
	<ul style="list-style-type: none"><li>• Finance and Management</li></ul>	

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## PROFESSIONAL EXPERIENCE

### University Experience

#### **Mathematics Education Assistant Professor**

West Virginia University, Morgantown, WV  
2009 - Present

#### **Clinical Assistant Professor/Instructor**

West Virginia University, Morgantown, WV  
2007 - 2009

#### **Graduate Research Assistant,**

West Virginia University, Morgantown, WV  
2005 - 2007

### Public School Experience

#### **Mathematics and Computer Science Teacher,**

West Salem High School, Salem, Oregon  
2003 - 2005

#### **Mathematics and Technology Teacher**

McMinnville High School, McMinnville, Oregon  
1998 - 2003

### Other Experience

#### **United States Peace Corps Volunteer, Mauritania, West Africa.**

1994-1996

**Peer Reviewed Publications**

- Selmer, S.**, Luna, M., & Rye, J. (in press). Insights into teachers' experiences implementing garden based learning: Characterizing the relationship between the teacher and the curriculum. *Teachers College Record*.
- Kale, U., & **Selmer, S.** (2014). Guiding the development of practice-oriented teacher knowledge. *The International Journal of Educational Organization and Leadership*, 20(3), 25-37.
- Selmer, S.**, Rye, J., Malone, E., Trebino, K., & Fernandez, D. (2014). What should we grow in our school garden to sell at the farmers market? Initiating statistical literacy through science and mathematics integration. *Science Activities*, 51(1), 17-32.
- Selmer, S.**, & Kale, U. (2013). Teaching mathematics through problem solving. *The Journal of Revista Innovación Educativa*, 62(13), 45-59.
- Selmer, S.**, & Floyd, K. (2012). UDL for geometric length measurement. *Teaching Children Mathematics*, 19, 146-151.
- Rye, J., **Selmer, S.**, Pennington, S., Vanhorn, L., Fox, S., & Kane, S. (2012). Elementary school garden programs enhance science education for all learners. *TEACHING Exceptional Children*, 44(6), 58-65.
- Selmer, S.**, Bolyard, J., & Rye, J. (2011). Statistical reasoning over lunch. *Mathematic Teaching in the Middle School*, 17, 274-281.
- Morris, S., **Selmer, S.**, & Martucci, A. (2011). Equity in education: Practicing educators' experiences and perspectives. *Journal of Curriculum and Teaching Dialogue*, 13(1), 127-141.
- Selmer, S.**, Graham, M., & Goodykoontz, E. (2011). Three women's educational doctoral program experiences: A case study of performances and journeys. *TOJQI*, 2(3), 14-25.
- Ye, S., Rye, J., & **Selmer, S.** (2010). Using pedometers in elementary science and mathematics methods courses. *Journal of Mathematics Research*, 2(3), 70-77.
- Spong, B., & **Selmer, S.** (2010). Leveraging audience response systems for programmatic evaluation in extension education. *The International Journal of Learning*, 17(3), 183-188.
- Graham, M., & **Selmer, S.** (2010). A Rhizomatic analysis of preservice teacher learning in literacy and mathematics. *The International Journal of Learning*, 17(3), 459-472.
- Selmer, S.** (2010). The Development of a secondary mathematics teacher professional stance in teacher education. *Counterpoint Journal*, 10, 186-196.
- Selmer, S.**, & Graham, M. (2010). Developing teacher identity through reflective engagements. *The International Journal of Learning*, 15(3), 189-200.
- Martucci, A., Goodykoontz, E., **Selmer, S.**, & Morris, S. (2010). Collaboration through a lens of social capital. *Journal of Curriculum and Teaching Dialogue*, 12(1), 137-150.

**Book Chapters and Conference Proceeding**

- Wall, J., Amy, B., & **Selmer, S.** (2014). Elementary prospective teachers' mathematical justifications through online mentoring modules. In M. Searson & M. Ochoa (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2014* (pp. 490-493). Chesapeake, VA: AACE.

Graham, M., **Selmer, S.**, & Goodykoontz, E. (2010). Individual doctoral education experiences and academic stewardship. In D. Callejo Perez, S. Fain, & J. Slater (Eds.), *Higher education and human capital: Re/thinking the doctorate in America* (pp. 159-168). Rotterdam, the Netherlands: Sense Publishers.

**Selmer, S.** (2008). The human experience: Changing perspectives in education. In J. Slater, D. Callejo Perez, & S. Fain (Eds.), *The war against the professions: The impact of politics and economics on the idea of the university* (pp. 113-129). Rotterdam, the Netherlands: Sense Publisher.

### **National Presentations**

**Selmer, S.**, Luna, M., & Rye, J. (2014, April). *Implementing garden-based learning: What do teachers experience as factors that support or challenge their efforts?* Poster presented at the annual meeting of the American Educational Research Association, Philadelphia, PA.

Bolyard, J., **Selmer, S.**, & LaRosa, L. (2013, April). *Students making sense of the standards for mathematical practice*. Presentation at the National Council of Teachers of Mathematics Annual Meeting and Exposition, Denver, CO.

**Selmer, S.**, Bolyard, J., & Malone, E. (2013, April). *Garden-based learning for length, area, and volume*. Presentation at the National Council of Teachers of Mathematics Annual Meeting and Exposition, Denver, CO.

Hayes, S., **Selmer, S.**, & Bolyard, J. (2013, April). *What do prospective teachers notice about teachers and students? Learning to teach from studying teaching*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Bernstein, M., **Selmer, S.**, & Bolyard, J. (2013, April). *Multilayered PCK: Working towards a model of teacher educator knowledge*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Bolyard, J., & **Selmer, S.** (2013, February). *Preparing elementary preservice teachers to teach the CCSSM standards of mathematical practice*. Presentation at the Association of Mathematics Teacher Educators Annual Conference, Orlando, FL.

**Selmer, S.**, & Bolyard, J. (2013, February) *Preservice teachers learning to teach by studying teaching*. Presentation at the Association of Mathematics Teacher Educators Annual Conference, Orlando, FL.

Bolyard, J., **Selmer, S.**, & Miller, A. (2012, April). *How does your pattern grow? Fostering students' algebraic reasoning*. Presentation at the National Council of Teachers of Mathematics Annual Meeting and Exposition, Philadelphia, PA.

**Selmer, S.**, Bolyard, J., & Rye, J. (2012, April). *Making the mathematics classroom come alive through garden-based learning*. Presentation at the National Council of Teachers of Mathematics Annual Meeting and Exposition, Philadelphia, PA.

Bernstein, M., **Selmer, S.**, Kale, U., Bolyard, J., & Whitehouse, P. (2012, April). *Virtual technology-enhanced attainable mathematics (V-Team): An integrated mathematics lesson study project*. Poster presented at the annual meeting of the American Educational Research Association, Vancouver, BC.

Bernstein, M., **Selmer, S.**, & Bolyard, J. (2012, April). *Articulating a model of teacher educators' knowledge*. Paper presented at the annual meeting of the American Educational Research Association, Vancouver, BC.

**Selmer, S.**, & Bolyard, J. (2012, February). *Developing preservice middle school mathematics teachers' pedagogical content knowledge in the area of algebraic reasoning*.

- Presentation at the Association of Mathematics Teacher Educators Annual Conference, Fort Worth, TX.
- Brown, A., Bolyard, J., & **Selmer, S.** (2012, February). *Comparing elementary preservice teacher problem solving activities in traditional versus distance course formats.* Presentation at the Association of Mathematics Teacher Educators Annual Conference, Fort Worth, TX.
- Kale, U., **Selmer, S.**, & Ravitz, J. (2011, April). *A video case study of a problem-based learning mathematics classroom: Supporting professional development in West Virginia.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Selmer, S.**, & Bolyard, J. (2011, February). *An emerging framework for two mathematics educators building knowledge of practice.* Presentation at the Association of Mathematics Teacher Educators Annual Conference, San Diego, CA.
- Martucci, A., & **Selmer, S.** (2010, October). *Exploring roles: How does mentoring impact teaching and collaboration in early childhood mathematics?* Paper presented at the Annual American Association for Teaching and Curriculum, St. Louis, MO.
- Selmer, S.**, Martucci, A., White, W., Morris, S., & Goodykoontz, E. (2010, October). *Discussion of equity in education: Practicing educators' experiences and perspectives related to equity.* Paper presented at the Annual American Association for Teaching and Curriculum, St. Louis, MO.
- Graham, M., & **Selmer, S.** (2010, July). *A rhizomatic analysis of pre-service teacher learning in literacy and mathematics across space and time.* Paper presented at the International Conference on Learning, Hong Kong.
- Selmer, S.**, & Graham, M. (2010, July). *Developing teacher identity through reflective engagements.* Paper presented at the International Conference on Learning, Hong Kong.
- Selmer, S.**, Bolyard, J., & Rye, J. (2010, April). *You are what you eat: Integrating science and mathematics.* Presentation at the NCTM Annual Meeting and Exposition, San Diego, CA.
- Callejo-Perez, D., Diaz, S., Jones, E., & **Selmer, S.** (2009, November). *Developing doctoral students and faculty: Deconstructing the journey from doctoral students to job market to colleagues.* Presentation at the Association for the Study of Higher Education, Vancouver, BC.
- Callejo-Perez, D., & **Selmer, S.** (2009, October). *Dissertations and tenure: A narrative of miscommunication.* Presentation at the Annual American Association for Teaching and Curriculum, Washington D.C.
- Callejo-Perez, D., Diaz, S., Jones, E., Johnson, J., & **Selmer, S.** (2009, October). *Changes in higher education: Issues, paradigms, and opportunities.* Presentation at the Annual American Association for Teaching and Curriculum, Washington D.C.
- Martucci, A. **Selmer, S.**, Niemiec, E., & Morris, S. (2009, October). *All the faces of collaboration.* Paper presented at the Annual American Association for Teaching and Curriculum, Washington D.C.
- Selmer, S.**, Niemiec, E., & Callejo-Perez, D. (2007, October). *Behind the curriculum mask: Ideas for expanding the curriculum conversation.* Presentation at the Annual American Association for Teaching and Curriculum, Cleveland, OH.

### **Regional Presentations**

- Hayes, S., **Selmer, S.**, & Bolyard, J. (2014, March). *Professional and student learning: Creating spaces for learning to teach in context*. Presentation at the West Virginia Professional Development Schools Annual Conference, Flatwoods, WV.
- Steel, S., **Selmer, S.**, Crace, N., Beatty, L., & Irwin, N. (2011, March). *Student voice in a rural PDS network*. Presentation at the West Virginia Professional Development Annual Conference, Flatwoods, WV.
- Rye, J., Van Horn, L., & **Selmer, S.** (2011, March). *Integrating elementary reading, mathematics, and science through earth science curricula and gardening project*. Presentation at the West Virginia Professional Development Annual Conference, Flatwoods, WV.
- Selmer, S.**, Bolyard, J., & Rye, J. (2010, September). *You are what you eat: Integrating science and mathematics*. Presentation at the West Virginia College Colloquium Series, Morgantown, WV.
- Bolyard, J., & **Selmer, S.** (2009, March). *Exploring non-traditional algorithms for addition and subtraction*. Presentation at the West Virginia Council of Teachers of Mathematics Annual Conference, Flatwoods, WV.
- Selmer, S.**, & Niemiec, E. (2009, March). *Project-based learning and linear functions: Real world applications*. Presentation at the West Virginia Council of Teachers of Mathematics Annual Conference, Flatwoods, WV.

### **Book Reviews**

- Selmer, S.** (2011). Review of the book *Teacher education matters: A study of middle school mathematics teacher preparation in six countries*, by W. Schmidt, S. Blomeke & M. Tatto. *Mathematics Teaching in the Middle School*, 17, 188.
- Selmer, S.** (2011). Review of the book *Learning to teach through discussion: The art of turning the soul*, by S. Haroutunian-Gordan. *Journal of General Education*, 30, 61-63.

## **GRANTS AND AWARDS**

- PI for Prospective Teachers' Transfer of Learning from Virtual Fieldwork Sequence to Student Teaching (\$3000) funded by the WVU Program Evaluation and Research Center (summer 2014-spring 2015)
- Co-PI for Supporting Teachers in Integrating Garden Based Learning Across the Curriculum (\$5750) funded by WVU Benedum Collaborative (fall 2013- spring 2014)
- Co-PI for Using School Gardening as a Vehicle for Project-Based Learning (\$5825) funded by WVU Benedum Collaborative (fall 2012 – spring 2013)
- Nominated for College of Human Resources and Education, Outstanding Teaching Award of the Year 2008, 2009, 2011, 2012, 2013
- Graduate Student of the Year 2007-2008
- Gerlach Scholarship Recipient 2006-2007

## **TEACHING**

### **Cumulative University Classroom Teaching Experience**

Curriculum and Instruction 707: *Theories, Models, and Research of Teaching*  
Education 430: *Elementary Mathematics Methods*

Curriculum and Instruction 630: *Problem Solving for Elementary Teachers*  
Curriculum and Instruction 337: *Mathematics Methods in the Middle School*  
Curriculum and Instruction 631: *Elementary Mathematics Methods*  
Curriculum and Instruction 631 (7D1): *Online Elementary Mathematics Methods*  
Education 401: *Classroom Effectiveness*  
Curriculum and Instruction 680: *Capstone Experience*  
Curriculum and Instruction 688: *Classroom Management and Effectiveness*

### **Professional Development Facilitator**

- Early childhood mathematics learning trajectories (fall 2010-spring 2011)
- Video clubs focused on upper elementary and middle grade mathematics (spring 2012-fall 2012)
- Conducting mathematics discussions (spring 2012)
- Integrating mathematics in the context of garden based learning (fall 2010-present)

### **Program Coordinator for the Advanced Elementary and Secondary Master of Art Program 2009-2013**

- Manage and oversee online course development for the C&I/LS online programs in Elementary and Secondary Education
- Bring cohesion and stability to the online program (course structure)
- Implement and coordinate an integrated program portfolio requirement
- Responsible for planning, implementing, and monitoring the program accreditation assessments
- Responsible for writing three accreditation reports
- Streamlined inquiry and application process

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## **SERVICE**

### **National Service**

- Proposal reviews for the American Educational Research Association Annual Conference and the Association of Mathematics Teacher Educators Annual Conference (fall 2009-present)
- Paper reviews for *Teaching Children Mathematics*, *Mathematic Teaching in the Middle School*, and *The International Journal of Learning* (fall 2009-fall 2012)

### **Local Service**

- School Liaison for the five year teacher education program at West Virginia University (fall 2009-fall 2011)
- Action research liaison for the five year teacher education program at West Virginia University (fall 2009- fall 2011)
- Student group (ESGA) faculty advisor for the five year teacher education program at West Virginia University (fall 2009-fall 2012)
- McCarthy-Dressman Scholarship faculty advisor (fall 2009-fall 2011)
- Participate in program development and improvement (mathematics education and advanced online programs) (fall 2009-present)
- Member of college and university committees (fall 2009-present)