

Curriculum Vitae

Sarah J. Selmer

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EDUCATION

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

PROFESSIONAL EXPERIENCE

University Experience

Mathematics Education Associate Professor

West Virginia University, Morgantown, WV
2015-present

Mathematics Education Assistant Professor

West Virginia University, Morgantown, WV
2009 - 2015

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

Department Editor, Mathematics Teacher: Learning and Teaching PK–12 (MTLT)
Fulbright Specialist, Lesotho, Southern Africa (2023)
United States Peace Corps Volunteer, Mauritania, West Africa.
1994-1996

SCHOLARLY ACTIVITY

Peer Reviewed Publications

- Lindstrom, D. & **Selmer**, S. (In Press). Prospective teachers eliciting and using evidence of student thinking in a formative assessment space. In D. Polly & C. Martin (Eds.), *Clinically based teacher education in action: Cases from mathematics teacher educators*
- Selmer**, S. & Lindstrom, D. (2022). Teaching responsively: Learning from the pedagogical reasoning of experienced elementary mathematics teachers. *PDS Partners: Bridging Research to Practice*, 17(2), 137-154.
- Selmer**, S., Lindstrom, D., & Lampen, E. (2022). A Case Study of Prospective Teachers Engaged in Professional Noticing of their Students' Mathematical Thinking. *Education Sciences*, 12(10), 656.
- Lindstrom, D. & **Selmer**, S. (2022). Responsive teaching and the instructional reasoning of expert elementary mathematics teachers. *Education Sciences*, 12(5), 350.
<https://doi.org/10.3390/educsci12050350>
- Luna, M., & **Selmer**, S. (2021). Examining the responding component of teacher noticing: A case of one teacher's pedagogical responses to students' thinking in classroom artifacts. *Journal of Teacher Education*, 00224871211015980.
- Selmer**, S., Lampen, E., & Lindstrom, D. L. (2021). Pre-service teachers engaged in noticing aspects of learner written work. *South African Journal of Education*, 41(2), 1-9.
- Selmer**, Sarah. (2019). Characterizing curricular areas that prospective teachers focus on when planning for mathematics instruction. *The International Journal of Science, Mathematics and Technology Learning*, 26 (2): 15-28. doi:10.18848/2327-7971/CGP/v26i02/15-28.
- Luna, M. J., **Selmer**, S., & Rye, J. A. (2018). Teachers' noticing of students' thinking in science through classroom artifacts: In what ways are science and engineering practices evident? *Journal of Science Teacher Education*, 29(2), 148-172.
- Rummel, S., Rye, J. A., **Selmer**, S., & Luna, M. J. (2017). Action Research to Integrate Science with Mathematics through Garden-Based Learning at the Elementary School Level. *Journal of Advances in Educational Research*, 2(4), 199-211. doi: 10.22606/jaer.2017.24002
- Selmer**, S., Valentine, K., Luna, M., Rummel, S., & Rye, J. (2016) How can we best use our school garden space? Exploring the concepts of area and perimeter in an authentic learning context. *Australian Primary Mathematics Classroom*, 21(4).
- Wall, J., **Selmer**, S., & Bingham Brown, A. (2016). Assessing elementary prospective teachers' mathematical explanations after engagement in online mentoring modules. *Contemporary*

Issues in Technology and Teacher Education, 16(3). Retrieved from <http://www.citejournal.org/volume-16/issue-4-16/mathematics/assessing-elementary-prospective-teachers-mathematical-explanations-after-engagement-in-online-mentoring-modules>

- Selmer, S.**, Bernstein, M., & Bolyard, J. (2016). Multilayered knowledge: Understanding the structure and enactment of teacher educators' specialized knowledge base. *Teacher Development*, 20(4), 437-457.
- Selmer, S.**, Luna, M., & Rye, J. (2015). Insights into teachers' experiences implementing garden based learning: Characterizing the relationship between the teacher and the curriculum. *Teachers College Record*. 117, 090302.
- 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.**, & 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.

National Presentations

- Selmer, S. & Luna, M. J. (2018, April). *Examining teacher noticing of students' thinking in a formative assessment context focused on classroom artifacts*. Paper presented at the annual meeting of the American Educational Research Association, New York, New York.
- Luna, M. J. (Author and Presenter), & Selmer, S. (Author) (2017, April). *Noticing students' thinking in classroom artifacts from an integrated math and science classroom experience*. Poster presented at the annual meeting of the American Educational Research Association, San Antonio, Texas.
- Luna, M. J. (Author & Presenter), **Selmer, S. (Author)**, Rye, J. A. (Author & Presenter) (2016, April). *Teachers' noticing of students' thinking in science through classroom artifacts: In what ways are science and engineering practices evident?* Paper presented at the annual meeting of the American Educational Research Association, Washington DC.
- Bolyard, J., Campbell, M., **Selmer, S.**, & Valentine, K. (2016, February). *Integrated STEM Initiatives: Issues, challenges, and opportunities for mathematics teacher education*. Presentation at the Association of Mathematics Teacher Educators Annual Conference, Irvine, CA.
- Selmer, S.**, Luna, M., & Rye, J. (2015, April). *Teachers' noticing of students' thinking in science through classroom artifacts*. Poster presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- Selmer, S.** (2015, February). *Prospective teachers' developing mathematical justifications and their facilitation of related student mathematical learning environments*. Presentation at the Association of Mathematics Teacher Educators Annual Conference, Orlando, FL.

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.

TEACHING

Cumulative University Classroom Teaching Experience

Current Courses

Curriculum and Instruction 431: *Elementary Mathematics Methods*

Curriculum and Instruction 433: *Elementary Mathematics Methods 2*

Curriculum and Instruction 230: *Elementary Mathematics Content (1)*

Curriculum and Instruction 231: *Elementary Mathematics Content (2)*

Previous Courses

Curriculum and Instruction 707: *Theories, Models, and Research of Teaching*

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*

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

SERVICE

National Service

- Department editor, MTLT journal (Fall 2023)

- Fulbright Specialist (Fall 2021-current)
- Member of the editorial board for the Association of Mathematics Teacher Educators Newsletter, *Connections!*

Local Service

- Participate in program development and improvement (mathematics education and advanced online programs) (fall 2009-present)
- Member of college and university committees (fall 2009-present)