

*Curriculum Vitae*

# Sam Prough

Postdoctoral Researcher (they/them)

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## EDUCATIONAL EXPERIENCES

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|--|---------------------------|
| <b>University of Wisconsin-Madison, Madison, WI</b><br>Doctor of Philosophy in Mathematics Education | September 2016 - May 2021 |
| <b>Purdue University, West Lafayette, IN</b><br>Master of Science in Education                       | June 2012 - August 2014   |
| <b>Valparaiso University, Valparaiso, IN</b><br>Bachelor of Science in Mathematics and Physics       | September 2008 - May 2012 |

## PROFESSIONAL EXPERIENCES

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| <b>University of Delaware</b><br>Postdoctoral Fellow   | September 2021 - present   |
| <b>University of Wisconsin-Madison</b><br>Research Assistant - JSMF project<br>Elementary Education Supervisor<br>Teaching Assistant<br>Elementary Education Supervisor<br>Research Assistant - Project LEAP | December 2018 - August 2021<br>January 2021 - May 2021<br>January 2019 - January 2021<br>January 2017 - January 2019<br>September 2016 - August 2018 |
| <b>Plymouth High School</b><br>Mathematics Teacher<br>Lead School Mathematics Curriculum Designer  | August 2013 - May 2016<br>August 2014 - May 2015   |
| <b>Valparaiso University</b><br>Research Assistant - Astrophysics  | May 2011 - August 2011   |
| <b>Southern Illinois University at Carbondale</b><br>Research Assistant - Physics and Material Chemistry   | May 2010 - August 2010   |

**TEACHING EXPERIENCES****ELEMENTARY & POSTSECONDARY:****Professional Learning Facilitator**

Lead job-embedded professional development around mathematics discussion. Co-teach instructional routines with classroom teachers. Observe and debrief teachers on their discussion practices

September 2022 - present

**Elementary Education Cohort Supervisor**

Observe and advise elementary pre-service teachers in their placement site. Support reflections between pre-service and cooperating teachers

January 2021 - May 2021

**Elementary Mathematics Methods Course Instructor**

Teacher of record, using research-based practices for mathematics teaching and learning

August 2023 - present

January 2020 - December 2020

**Elementary Mathematics Content Course Instructor**

Teacher of record, teaching mathematical content knowledge for teaching focused on materials for grades K - 3

January 2019 - January 2020

**Elementary Education Lead Cohort Supervisor**

Observe and advise elementary pre-service teachers in their placement site. Support reflections between pre-service and cooperating teachers. Facilitate and organize pre-service teachers' seminar on problems of practice of the profession

January 2017 - January 2019

**HIGH SCHOOL:****Teacher Trainer**

Support, observe, and provide feedback for other high school teachers on project-based learning practices

June 2015 - May 2016

**Mathematics Teacher**

Teach courses in pre-algebra, algebra I, algebra II, and calculus. Support development of project-based units with the mathematics teacher team.

August 2013 - May 2016

**RESEARCH****EXTERNAL FUNDING:****University of Delaware, Newark, DE**

Spencer Small Grant, application submitted

December 2022

**University of Wisconsin-Madison, Madison, WI**

Ford Foundation Fellowship, honorable mention March 2020  
Curriculum and Instruction conference travel award March 2019

**Purdue University, West Lafayette, IN**

Woodrow Wilson Teaching Fellowship June 2012

**PEER REVIEWED PUBLICATIONS:**

- Prough, S. (2022). Whose interpretation matters? Centering participants through observation debrief. *American Journal of Qualitative Research*, 6(3), 60-73. <https://doi.org/10.29333/ajqr/12440>
- Prough, S., Gibbons, L., & Wilhelm, A.G. (2022). Supporting coherence in classroom discussions across content areas. *AMTE Connections*. <https://amte.net/connections/fall-2022>
- Prough, S. & Cordero-Siy, E. (2022). Seeing the colors of ourselves and others. In C. Koestler, J. Ward, M. del Rosario Zavala, T. Bartell, & B.R. Lawler (Eds.), *Early elementary mathematics lessons to explore, understand, and respond to social injustice* (pp. 158 - 166). Corwin.
- Kazemi, E., Ghouseini, H., Cordero-Siy, E., Prough, S., McVicar, E., & Resnick, A.F. (2021). Supporting teacher learning about argumentation through adaptive, school-based professional development. *ZDM*. <https://doi.org/10.1007/s11858-021-01242-5>

**Under review/proposals accepted:**

- Wilhelm, A.G., Prough, S., Memmolo, R., Gibbons, L. (2023, proposal accepted). Assessing elementary teachers' discussion practices across disciplines. In *Edward Elgar Handbook on Classroom Observation*.
- Prough, S. (2023, review decision, revisions). What counts as math?: Recognition of mothers' mathematical activity. *Journal of Mathematical Behavior*.
- Prough, S., Webster, A., & Gibbons, L. (2023, under review). The context and development of teachers' collective noticing on students' thinking. *Educational Studies in Mathematics*.
- Prough, S. (2023, review decision, revisions). Understanding parents' mathematical interaction with young children. *Educational Studies in Mathematics*.
- Prough, S. (2023, review decision, revisions). The pervasive whiteness in expectations of motherhood and parental involvement in schooling. *Whiteness and Education*.

**PEER REVIEWED PROCEEDINGS:**

- Prough, S., Webster, A., & Gibbons, L. (2022). Teacher opportunities to interpret and respond to children's mathematical ideas. In A.E. Lischka, E.B. Dyer, R.S. Jones, J.N. Lovett, J. Strayer, S. Drown (Eds.) *Critical Dissonance and Resonant Harmony: Proceedings of the 44th Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1529 - 1530). Nashville, TN. <https://doi.org/10.51272/pmena.44.2022>
- Prough, S. (2022). The competing expectations of motherhood and mathematics: Internalized gendered and racialized narratives within. In A.E. Lischka, E.B. Dyer, R.S. Jones, J.N. Lovett, J. Strayer, S. Drown (Eds.) *Critical Dissonance and Resonant Harmony: Proceedings of the 44th Meeting of the North American Chapter of the International Group for the Psychology of*

- Mathematics Education* (pp. 477 - 486). Nashville, TN.  
<https://doi.org/10.51272/pmena.44.2022>
- Prough, S. (2021). Mathematical mothers: Investigating shifts in perspective around what counts as mathematics. In D. Olanoff, K. Johnson, & S. Spitzer (Eds.) *Productive Struggle: Persevering Through Challenges: Proceedings of the 43rd Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 775 - 783). Philadelphia, PA.
- Cordero-Siy, E., Prough, S., Ghouseini, H., & Alapala, B. (2021). Identifying and recontextualizing problems of practice in learning to facilitate discussions with argumentation. In D. Olanoff, K. Johnson, & S. Spitzer (Eds.) *Productive Struggle: Persevering Through Challenges: Proceedings of the 43rd Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 672 - 681). Philadelphia, PA.
- Prough, S. (2020). Mother-centered understanding of mathematical interactions with children: Pursuing positive intent. In Sacristán, A.I., Cortés-Zavala, J.C. & Ruiz-Arias, P.M. (Eds.). *Mathematics Education Across Cultures: Proceedings of the 42nd Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1405 - 1409). Mexico. Cinvestav/AMIUTEM/PME-NA.  
<https://doi.org/10.51272/pmena.42.2020>
- Prough, S., Cordero-Siy, E., McVicar, E., Ghouseini, H., & Kazemi, E. (2020). “This is you. This is your family.”: Case study on attending to mathematical language development. In Sacristán, A.I., Cortés-Zavala, J.C. & Ruiz-Arias, P.M. (Eds.). *Mathematics Education Across Cultures: Proceedings of the 42nd Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1912 - 1916). Mexico. Cinvestav/AMIUTEM/PME-NA. <https://doi.org/10.51272/pmena.42.2020>
- Ghouseini, H., Kazemi, E., Prough, S., & Resnick, A.F. (2019, November 14-17). *An investigation of teachers’ sensemaking around facilitating mathematical argumentation*. In Otten, S., Candela, A. G., de Araujo, Z., Haines, C., & Munter, C. (2019). *Proceedings of the forty-first annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 558-562). St Louis, MO: University of Missouri.  
<https://www.pmena.org/pmenaproceedings/PMENA%2041%202019%20Proceedings.pdf>
- Torres, R.V., Prough, S., Strachota, S., Stephens, A., Sung, Y., Gardiner, A.M., Blanton, M., Knuth, E. (2019, April 4-9). *Describing the unknown: Moving toward variable notation and algebraic thinking in kindergarten*. Paper presented at AERA, Toronto.
- Prough, S., Strachota, S., Veltri, R., Isler, I., Blanton, M., Gardiner, A., Knuth, E., & Stephens, A. (2017, October 5-8). *Fostering Generalizations: a classroom discourse analysis*. In Galindo, E. & Newton, J. (2019). *Proceedings for the thirty-ninth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics* (pp. 287-290). Indianapolis, IN: Purdue University.  
<https://www.pmena.org/pmenaproceedings/PMENA%2039%202017%20Proceedings.pdf>
- Veltri, R., Prough, S., Strachota, S., Knuth, E., Stephens, A., Stylianou, D., Blanton, M., Stroud, R., & Gardiner, A. (2017, October 5-8). *The Impact of a Teacher-led Early Algebra Intervention*. In Galindo, E. & Newton, J. (2019). *Proceedings for the thirty-ninth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics* (p.

334). Indianapolis, IN: Purdue University.

<https://www.pmena.org/pmenaproceedings/PMENA%2039%202017%20Proceedings.pdf>

#### **Under review:**

- Wilhelm, A.G., Prough, S., Gibbons, L. (2023, submitted). Working across content areas to support teachers' improvement of mathematics classroom practice. Paper submitted at ICME, Sydney AU
- Cordero-Siy, E., Prough, S., & Ghouseini, H. (2023, submitted). Facilitating mathematics discussions: Case study of attending to mathematical language and mathematical development and participation. In C. Grant (chair), *Equity and "core" teaching practices across disciplines: Bridging constructs and communities to support students' flourishing*. [Symposium]. Paper submitted at AERA, Philadelphia.
- Ghouseini, H., Prough, S., Cordero-Siy, E. (2023, submitted). Identifying and recontextualizing problems of practice using representations of leading classroom mathematics discussions. In C. Monte-Sano (chair), *Representations of practice to scaffold teacher learning to enact equitable and disciplinary classroom discussions*. [Symposium]. Paper submitted at AERA, Philadelphia.
- Kavanagh, S.S., Prough, S., Guillotte, A., Wilhelm, A.G., Gibbons, L., & Manz, E. (2023, submitted). What distinguishes a literacy discussion?: Elementary teachers' visions of classroom discussion across the content areas. In A. Stornaiuolo (chair), *Discussions in the humanities*. [Symposium]. Paper submitted at AERA, Philadelphia.
- Marianno, L. & Prough, S. (2023, submitted). *Elementary teachers' images of equity: Recognizing race, gender, and power in classroom discussions*. Paper submitted at AERA, Philadelphia.
- Pinilla, R.K., Prough, S., & Young, K. (2023, submitted). *Extending teacher noticing frameworks to conceptualize content-based teacher noticing*. Paper submitted at AERA, Philadelphia.
- Prough, S. [chair]. (2023, submitted). *Supporting educators to facilitate dialogic talk across content and context*. [Symposium]. Papers submitted at AERA, Philadelphia.

#### **ACADEMIC PRESENTATIONS:**

- Prough, S. [chair]. (2023, accepted). *Supporting elementary teachers' mathematics classroom discussion practices*. [Symposium]. Papers presented at NCTM Research Conference, Washington, D.C.
- Prough, S. (2023). Uncovering the hidden assumptions of positionality in qualitative research. International Congress of Qualitative Inquiry. Urbana, IL.
- Prough, S. & Gibbons, L. (2023). Challenging teachers' noticing of student participation in mathematics discussion. AMTE. New Orleans, LA.
- Pinilla, R.K., Metzger, C., Wilhelm, A.G., & Prough, S. (2023). Assessing teacher noticing to design for future learning and understand change. AMTE. New Orleans, LA.
- Prough, S., Haley, K., & Gibbons, L. (2022). Tools and talk moves for rich classroom discussion. NCTM Regional Conference. Baltimore, MD.
- Prough, S. (2022, April 26). Not all mothers are white: Expectations of motherhood and parental involvement in schooling. [Symposium] AERA, annual meeting.
- Gibbons, L., Marianno, L., Metzger, C., Prough, S., & Webster, A. (2022, April 19). Responding to elementary teachers' learning needs: Partnering to support student talk in classrooms. *3rd Annual Provost Symposium*. University of Delaware.

- Prough, S., Webster, A., & Gibbons, L. (2022, March 11). Unpacking student thinking: CGI interviews as a tool for understanding [Conference session]. *Delaware Council of Math Leaders 2022 Annual Triple Crown Conference*.
- Prough, S. (2021, October 15). Parents are not a scapegoat for math learning loss. *The 43rd Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Plenary Session.
- Gibbons, L., Knapp, M., & Prough, S. (2021, October 8). Returning to the classroom: Supporting students' voice. Delaware Math Equity Annual Conference. Powerful moments in mathematics class: Redefining mathematical identities and creating positive memorable experiences for all learners.
- Lord, S. & Prough, S. (2021). *Using one-on-one student-teacher conferences to build community and mathematical confidence* [Conference session]. National Council of Teachers of Mathematics Annual Meeting and Exposition, Atlanta, GA. (Conference Canceled)
- Prough, S. (2021, May 19 - 22). Listening to their words instead of putting words in their mouths: An alternative to observation analysis. [Conference session]. *International Congress of Qualitative Inquiry*, Urbana, IL: University of Illinois Urbana-Champaign.  
<https://icqi.org/wp-content/uploads/2021/05/QI2021-Virtual-Program-051821.pdf>
- Prough, S., Cordero-Siy, E., Alapala, B., & Ghouseini, G. (2021, May 19 - 22). Making sense of teacher sensemaking: Unpacking a kaleidoscope of data to place teacher learning in context. [Conference session]. *International Congress of Qualitative Inquiry*, Urbana, IL: University of Illinois Urbana-Champaign.  
<https://icqi.org/wp-content/uploads/2021/05/QI2021-Virtual-Program-051821.pdf>
- Ghouseini, H., Prough, S., Cordero-Siy, E. (2021, Apr 9 - 12). *Teachers' Collaborative Sensemaking about broadening student participation in mathematics discussions* [Symposium]. AERA Annual Meeting, virtual.
- Prough, S. (2020, June 15-18). *Making mothers and mathematics mix: Exploring the tensions of expectations within motherhood and mathematics education* [Conference session]. Gender and Education Association International Conference, Calgary, CA: University of Calgary.  
<http://www.genderandeducation.com/wp-content/uploads/2020/03/GEA-2020-Program-To-Post.pdf> (Conference canceled)
- Prough, S., Ghouseini, H., Cordero-Siy, E., Kazemi, E., McVicar, E. (2020, May 20-23). Teacher learning measured by insights not inches [Conference session]. *International Congress of Qualitative Inquiry*, Urbana, IL: University of Illinois Urbana-Champaign.  
<https://icqi.org/wp-content/uploads/2020/02/QI2020-First-Preliminary-Program.pdf> (Conference canceled)
- Prough, S. (2020, May 20-23). Introspection as exposition: Framing personal stories to support critical narrative inquiry. [Conference session] *International Congress of Qualitative Inquiry*, Urbana, IL: University of Illinois Urbana-Champaign.  
<https://icqi.org/wp-content/uploads/2020/02/QI2020-First-Preliminary-Program.pdf> (Conference canceled)
- Prough, S. (2020, Apr 17 - 21) *Mothers Can Be Black: Parental Involvement and the Expectations of Mothering* [Symposium]. AERA Annual Meeting San Francisco, CA  
<http://tinyurl.com/vydayzc> (Conference Canceled)

- Prough, S. (2020, Apr 17 - 21) *Beyond Good Versus Bad: Reconceptualizing Normative Motherhood* [Roundtable Session]. AERA Annual Meeting San Francisco, CA <http://tinyurl.com/tpgz8ou> (Conference Canceled)
- Prough, S. (2018, December 9-12). *Trusting stories: Women's experience in math*. Paper presented at Gender and Education Association International Conference, Newcastle, AU: Newcastle University.
- Veltri, R., Prough, S., & Strachota, S. (2017, July 31-August 2). *Supporting Student Generalizing: An Analysis of Classroom Discourse*. Poster presented at the 27th Society of Text and Discourse Conference, Philadelphia, PA.
- Prough, S., Veltri, R., Strachota, S., Stephens, A., Knuth, E., & Blanton, M. (2017, May 4-5). *Supporting Students' Algebraic Reasoning in the Early Grades*. Presentation at Wisconsin Mathematics Council Annual Conference (National Council of Teachers of Mathematics-Affiliate), Green Lake, WI.

## PROFESSIONAL SERVICE

### Journal Reviewer

- National Council of Teachers of Mathematics - Mathematics Teacher: Learning and Teaching 2019 - present

### Conference Proposal Reviewer

- Association of Mathematics Teacher Educators 2022 - present
- Psychology of Mathematics Education, North American Chapter (PME-NA) 2017 - present

### Professional Memberships

- National Council of Teachers of Mathematics (NCTM) 2021 - present
- American Educational Research Association (AERA) 2019 - present
- Psychology of Mathematics Education, North American Chapter (PME-NA) 2017 - present

## AWARDS AND HONORS

### Plymouth High School, Plymouth, IN

- Most Influential Teacher Award January 2016
- Rock Solid Teacher Award May 2015

### Valparaiso University, Valparaiso, IN

- Lumina Award May 2012
- Ruby Sword of Honor, Sigma Alpha Iota May 2012