

Kathleen Pitvorec

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Education

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|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| University of Illinois at Chicago | Learning Sciences—Mathematics Education Focus Dissertation: <i>Mathematics as Meaning-Making Activity: Describing Preservice Teachers' Discourse during Meaning Making</i> | Ph.D., 2016 |
| University of Chicago | Elementary Education | M.S.T., 2001 |
| University of Chicago | Anthropology | B.A., 1987 |

Employment History/Appointments

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| Research Assistant Professor | University of Illinois at Chicago | 2016–present |
| Adjunct Faculty; Visiting Lecturer: mathematics content and methods courses for preservice/inservice teachers | Northwestern University University of Illinois at Chicago | 2016–2020 2010–2021 |
| Senior Curriculum Developer; special projects consultant | University of Chicago Center for Elementary Mathematics and Science Education | 2007–present |
| Researcher | Center for the Mathematics Education of Latinos/as at the University of Illinois at Chicago Assessment Project at the Learning Sciences Research Institute at the University of Illinois at Chicago | 2008–2011 2008 |
| Curriculum developer; researcher | Teaching Integrated Mathematics and Science Project at the University of Illinois at Chicago | 2005–2007 |
| Associate Director | <i>Everyday Mathematics</i> Implementation Center at the University of Chicago | 2000–2004 |
| 2 nd and 3 rd Edition author | <i>Everyday Mathematics</i> at the University of Chicago School Mathematics Project | 1997–2006 |
| Teacher-in-Residence | <i>Everyday Mathematics</i> at the University of Chicago School Mathematics Project | 1995–1997 |
| Mathematics education consultant | National and international consultant supporting leadership development, and mathematics teaching and learning in schools and school districts | 1996–present |
| Teacher | University of Chicago Laboratory Schools Lincolnshire, Illinois | 1989–1995 1988–1989 |

Research Foci

Study the collaborative design process (with middle school teachers) and implementation of mathematics tasks to maximize opportunities for student-to-student discourse

Study the contexts and task features that support student-to-student discourse during collective reflection on student thinking and ideas

Study teacher learning with relation to how middle school teachers revise their practices related to promoting student agency and distributing mathematical authority in the classroom

Study researcher-practitioner partnerships engaged in developing district capacities for designing and implementing data-driven improvement cycles in mathematics teaching and learning

Journal Publications (Refereed)

Superfine, A. C., & Pitvorec, K. (2021). Using community artifacts to support novice math teacher educators in teaching prospective teachers. *International Journal of Science and Mathematics Education, 19*, 59-75.

Brown, S. A., Pitvorec, K., Ditto, C., & Kelso, C. R. (2009). Reconceiving the intended curriculum: An investigation of elementary whole number lessons. *Journal for Research in Mathematics Education, 40*(4), 363–395.

Book Chapters (Refereed)

Pitvorec, K., Superfine, A. C., Goldman, S., & Fry, C. (2022). Teacher-researcher collaborative inquiry in mathematics teaching practices: Learning to promote student discourse. In A. C. Superfine, S. Goldman, and M.L. Ko (Eds.), *Teacher Learning in Changing Contexts: Perspectives from the Learning Sciences*. Routledge.

Pitvorec, K., & Tavormina, M. J. (2020). Hybrid courses for preparing Elementary Mathematics Specialists: Challenges, successes, and lessons learned. In *Handbook of Research on Online Pedagogical Models for Mathematics Teacher Education* (pp. 79-98). IGI Global.

Superfine, A. C., Pitvorec, K., & Stoelinga, T. (2020). Developing student agency to support learning-trajectory-based formative assessment. In *Handbook of Research on Formative Assessment in Pre-K Through Elementary Classrooms* (pp. 151-164). IGI Global.

Pitvorec, K., Willey, C., & Khisty, L. L. (2010). Toward a framework of principles for ensuring effective mathematics instruction for bilingual learners through curricula. In W. Secada, M. Graven, P. Valero, & B. Atweh (Eds.), *Mapping Equity and Quality in Mathematics Education*. (pp. 407–422). Springer: Netherlands.

Conference Proceedings and Papers (Refereed)

Pitvorec, K. (2022). “Coding System for Identifying Agency and Authority Relationships between Teachers and Students in Classroom Discussions” Paper presented at the American Educational Research Association Annual Meeting, San Diego, CA, April 21-26, 2022.

Pitvorec, K. (2022). “Teacher Learning Through Reflective Inquiry: Increasing Productive Disciplinary Discourse in Mathematics Classrooms” Paper presented at the American Educational Research Association Annual Meeting, San Diego, CA, April 21-26, 2022.

- Pitvorec, K. & Fry, C. (2019). "Fostering student agency and distributed mathematical authority: Surfacing teacher learning and teacher change." Proceedings of *41st Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education*. St Louis, MO, November 14–17, 2019.
- Popp, J.S. & Pitvorec, K. (2019). *Teacher reflection on problems of practice guiding inquiry into teacher learning*. Paper presented at the American Educational Research Association Annual Meeting, Toronto, Canada, April 5–9, 2019.
- Brown, S., Pitvorec, K., & Ditto, C. (2008). "Exploring the need for a professional vision towards curricula." Proceedings of *32nd Annual Conference of the International Group for the Psychology of Mathematics Education*, Morelia, Mexico, Jul 17–21, 2008.
- Brown, S., Castro, A., Pitvorec, K., & Ditto, C. (2007). "Fidelity of implementation: Teachers' instructional moves in the context of a standards-based curriculum." Proceedings of *29th Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education*, Lake Tahoe, NV, Oct 25–18, 2007.
- Brown, S., Ditto, C., Kelso, C., & Pitvorec, K. (2006). "Teachers' implementation of standards-based elementary whole number lessons." Proceedings of *28th Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education*, Merida, Yucatan, Nov 9–12.

Conference Presentations (Refereed)

- Pitvorec, K., & Superfine, A. (2020). A collaborative inquiry model for teacher professional development: A focus on formative assessment and student agency. Presentation given at *Association of Mathematics Teacher Educators*, Feb 6-8, Phoenix, AZ.
- Pitvorec, K., & Tavormina, M. (2020). Hybrid courses for preparing elementary mathematics specialists: Challenges, successes, and lessons learned. Presentation given at *Association of Mathematics Teacher Educators*, Feb 6-8, Phoenix, AZ.
- Superfine, A. & Pitvorec, K. (2020) A collaborative inquiry model for teacher professional learning: working *with* teachers rather than *on*." ICMI Study 25, Teachers of Mathematics Working and Learning in Collaborative Groups. Lisbon, Portugal, February 3–7, 2020.
- Willey, C., Pitvorec, K. Khisty, L. (2012) Examining curricula as a means to improve access for Latina/o mathematics learners. Presentation given at *National Council of Teachers of Mathematics Conference*, Apr 25–28, Philadelphia, PA.
- Willey, C., Pitvorec, K. Khisty, L. (2012) Redesigning a written curriculum to maximize bilingual students' mathematics learning. Paper presented at *American Educational Research Association Conference*, Apr 13–17, Vancouver, BC, Canada.
- Pitvorec, K., & Khisty, L. (2012) An exploration of ideological becoming in the redesign of a university course in mathematics teacher education. Presentation given at *Mini-Bakhtinian Conference on Dialogic Pedagogy*, Mar 29–Apr 1, Wilmington, DE.
- Pitvorec, K. & Haake, J. (2011). Assessment of and FOR Learning: How to Use Summative Assessments to Inform Instruction. Presentation given at *National Council of Supervisors of Mathematics Conference*, Apr 10–13, Indianapolis, IN.
- Pitvorec, K., & Haake, J. (2010). Every student, every day: Developing the knowledge and skills to ensure high quality core instruction. Presentation given at *National Council of Supervisors of Mathematics Conference*, Apr 18–21, San Diego, CA.
- Willey, C., & Pitvorec, K. (2009). How do you know if what you're doing is good for ELLs? Presentation given at *Chicago Mathematics Science Initiative Conference*, May 2 Chicago, IL.

- Brown, S., & Pitvorec, K. (2009). Characterizing “Character of Use”: An examination of elementary whole number lesson enactments. Paper presented at *American Educational Research Association Conference*, Apr 13–17, San Diego, CA.
- Wiley, C., & Pitvorec, K. (2009). Developing a framework for considering how mathematics curricula support bilingual students. Paper presented at *Center for the Mathematics Education of Latinos/as Conference* Jan 16–18. Albuquerque, NM.
- Pitvorec, K. (2001). “Teaching *Everyday Mathematics*.” Interactive presentation at *National Council of Teachers of Mathematics Regional Conference*, Oct 11, Madison, WI.
- Pitvorec, K. (2000). “Fun & Frolic with Data Discoveries.” Interactive presentation at *National Council of Teachers of Mathematics*, Apr 12–15, Chicago, IL.
- Palopoli, M., Matsikas, P., & Pitvorec, K. (1994). “An interdisciplinary insect investigation.” Interactive presentation at *National Science Teachers Association*, Oct 15, Portland.

Selected Invited Talks

- Pitvorec, K., & Tavormina, M. (2020, March 17). Engaging students online with Zoom. Association of Mathematics Teacher Educators.
<https://www.amte.net/content/synchronous-online-instruction%E2%80%94special-two-part-webinar>
- Pitvorec, K., Khisty, L. L., Wiley, C., & Guzowski, M. (2011). Curriculum Design that Supports Math & Language Development for ELLs. Interactive presentation at *Center for Elementary Mathematics and Science Education* at the University of Chicago. Chicago IL, Jan 25.
- Pitvorec, K., Wiley, C., & Khisty, L. L. (2010). Curriculum and Latinas/os: Toward guiding principles for equity and quality in mathematics instruction. Paper presented at CEMELA-CPTM-TODOS Conference, Tucson, AZ, March 4–7.
- Pitvorec, K. (2009). “Implementing EM with attention to meeting the needs of a diverse student group.” Interactive presentation at the *International School of Jakarta*. Jakarta, Indonesia, Feb 23–Mar 6.
- Pitvorec, K. (2008). “Algebra in elementary school.” Presentation for L.A. School District, Los Angeles, CA, Jan 15.
- Pitvorec, K. (2007). “Strategies for meeting students’ needs.” Interactive presentation at *International School of Beijing*. Beijing, China, Sep 10–14, 2007.
- Pitvorec, K. (2006). “Differentiation in the *Everyday Mathematics* program.” Presentation at *Elementary School Heads Association* annual meeting, Chicago, IL, Oct 22–24, 2006.
- Pitvorec, K. (2003). “Implementing *Everyday Mathematics*.” Interactive presentation at the *Newark Annual Principals Meeting*, Newark, NJ, May 14, 2003.

Synergistic Activities

America Needs You. Pitvorec has been participating since August 2019 in American Needs You (ANY) Chicago chapter as a mentor coach providing support for a high-potential, first generation University of Illinois undergraduate student so that she might realize her personal and professional goals. The mission of the organization is to “fight for the economic mobility for ambitious, first-generation college students.

UIC. Supported by a local foundation grant, Pitvorec has been working with a team (including team members from UChicago Stem and DePaul University’s Stem Center) to develop and pilot courses for elementary mathematics specialists in Illinois. The first cohort, from Chicago Public Schools (CPS), completed the five-course program in spring 2019. The second cohort (teachers from CPS as well as several high-needs districts in south Cook County) completed the program in spring 2021.

In addition, the development team is working with the Illinois State Board of Education to promote the development of credentials for elementary math specialists.

Northwestern University. As an adjunct lecturer at Northwestern University from 2016 to present, Pitvorec's duties included developing course outlines for and teaching mathematics content and methods courses for preservice K-8 teachers in the MST program.

CEMSE. At the Center for Elementary Mathematics and Science Education (CEMSE) at the University of Chicago, Pitvorec had the role of senior curriculum developer and team leader for the Grade 6 writing team of *Everyday Mathematics*. In this role, she served as the architect for the fourth edition of the sixth grade materials. She also served as a mentor to team members, overseeing their work lesson writing and designing and providing professional development for field test teachers.

CEMELA. At the Center for the Mathematics Education of Latinos/as (CEMELA) at UIC, Pitvorec worked closely with Dr. Lena Licón Khisty and Dr. Craig Willey investigating the affordances and constraints of written curricula with respect to bilingual learners. The goal of their work was to synthesize a set of recommendations for increasing bilingual learners' access to mathematics content through improved curricular design. This work culminated in several presentations to the authors of the *Everyday Mathematics* curriculum aimed at informing their design of the fourth edition materials.

UCSMP. In 2000, Pitvorec was appointed the associate director of the University of Chicago School Mathematics Project's (UCSMP) *Everyday Mathematics* Implementation Center. As part of her work there, she designed and provided professional development for teachers implementing the *Everyday Mathematics* curriculum. In addition, she planned, organized, and coordinated national leadership conferences to support administrators and teacher leaders using the curriculum.

Other Professional Activities

Reviewer for Journal of Mathematics Teacher Education (2019–present)

Reviewer for School Science and Mathematics (2017–present)

Reviewer for PME-NA conference proposals (2013–2014, 2019–present)

Reviewer for AMTE conference proposals (2010–present)

Reviewer for AERA Division K conference proposals (2008–2014, 2020–present)

Reviewer for the *NCSM Journal* (2008–2011)

Reviewer for the *Mathematics Teacher* (1993–2000)

University of Chicago Laboratory Schools Curriculum Committee member (1995–96)

University of Chicago Laboratory Schools liaison to globally oriented L.I.F.E. school in Guatemala establishing relationships for curriculum development and student exchange (1993–95)

Vice President of the Faculty Association (1994–95)

Member-at Large on the Executive Board of the Faculty Association (1992–94)

Awards & Grants

2022 Phillip Wagreech STEM Education Award

2010 Nominated for Dean's Scholarship Award

1994 Golden Apple Award Finalist

1994 Heinemann Family Grant to support classroom Lego-Logo project

1992 Heinemann Family Grant for cross-curricular project comparing the economic systems of socialism and capitalism