

## **Ilana Seidel Horn**

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### **ACADEMIC POSITIONS**

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- 2015 to present      **Professor**, Mathematics Education, Peabody College, Vanderbilt University, Nashville, TN.
- 2009 to 2015      **Associate Professor**, Mathematics Education, Peabody College, Vanderbilt University, Nashville, TN.
- 2003 to 2009      **Assistant Professor**, Mathematics Education, College of Education, University of Washington, Seattle, WA.
- 2002-2003      **AERA-IES Postdoctoral Researcher**, Stanford University School of Education, Stanford, CA, with Jo Boaler.
- 1995- 2002      **Research Assistant**, University of California, Berkeley, with Judith Warren Little, Alan Schoenfeld, Phil Daro and David Stern.

### **RESEARCH INTERESTS**

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Secondary mathematics education, teachers' informal and formal learning, high school departments as contexts for teacher and student learning, classroom discourse, teachers' discourse, motivation and engagement, equitable mathematics teaching

### **EDUCATION**

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- 2002      University of California, Berkeley, Mathematics Education, Ph.D.  
Doctoral committee: Alan Schoenfeld (co-chair), Judith Warren Little (co-chair), Rogers Hall, Alan Weinstein.
- 1998      University of California, Berkeley, Mathematics Education, MA
- 1993      Swarthmore College, Mathematics, BA with Distinction

### **HONORS**

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- 2015      Outstanding Publication by the American Psychology Association, Division 15 (Educational Psychology)
- 2013      Visiting Scholar in Learning Sciences, Education Faculty, University of Haifa, Haifa, Israel. Hosted by Anna Sfard.

2007-2009	Spencer Foundation/National Academy of Education Postdoctoral Fellow
2003	American Educational Research Association Division K Outstanding Dissertation Award
2003	University of California, Berkeley, Graduate School of Education Outstanding Dissertation Award
2001-2002	Spencer Dissertation Fellowship
1998-1999, 2000-2001	UC Berkeley Graduate School of Education, University Fellowship
1997-1998, 2000	Spencer Graduate Research Fellow, Center for Integrated Studies of Teaching and Learning
1996-1997	Regents Fellowship
1995-1996	University Fellowship
1993	Phi Beta Kappa

## **PUBLICATIONS**

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### ***Books***

Horn, I.S. (2012). *Strength in Numbers: Collaborative Learning in Secondary Mathematics*. Reston, VA: National Council of Teachers of Mathematics.

Horn, I.S. & Cardone, T. (2016). *The Best of the Math Blogs 2015*. Pressbooks.

### ***Books In Progress***

Horn, I.S. (In preparation). *Risk/Reward: Designing Motivational Math Classrooms*. Portsmouth, NH: Heinemann.

### ***Articles*** (\* denotes peer reviewed publications)

- \* Horn, I.S., Garner, B., Kane, B.D., & Brasel, J. (In press). A taxonomy of instructional learning opportunities in teachers' collegial conversations. *Journal of Teacher Education*.

- \* Horn, I.S. (2016). Accountability as a Design for Teacher Learning: Sensemaking about Mathematics and Equity in the NCLB Era. *Urban Education*. DOI: 10.1177/0042085916646625
  - \* Nolen, S.B, Horn, I.S. & Ward, C.J. (2015). Situating motivation. *Educational Psychologist*. 50(3), 234–247.
  - \* Horn, I.S. & Kane, B.D. (2015). Opportunities for professional learning in mathematics teacher workgroup conversations: Relationships to instructional expertise. *Journal of the Learning Sciences*. 24(3), 373-418.
- Brasel, J., Garner, B., Kane, B.D., & Horn, I.S. (2015, November). Getting to the Why and How. *Educational Leadership Online*.  
<http://www.ascd.org/publications/educational-leadership/nov15/vol73/num03/Getting-to-the-Why-and-How.aspx>
- \* Horn, I.S., Kane, B.D., & Wilson, J. (2015, April). Making sense of student performance data: Data use logics and mathematics teachers’ learning opportunities. *American Educational Research Journal*. 52(2), 208-242.
  - \* Horn, I.S. & Campbell, S.S. (2015). Mediated field experience as a pedagogy for teacher education. *Pedagogies: An International Journal*.
  - \* Hall, R.P. & Horn, I.S. (2012). Talk and conceptual change at work: Analogy and epistemic stance in a comparative analysis of statistical consulting and teacher workgroups. *Mind, Culture, Activity*, 19(3), 240-258. (Equal authorship)
  - \* Bier, M.L., Horn, I., Campbell, S.S., Kazemi, E., Hintz, A., Kelley-Peterson, M., Stevens, R., Saxena, A., & Peck, C. (2012). Designs for simultaneous renewal in university-public school partnerships: Hitting the “sweet spot.” *Teacher Education Quarterly*. 39(3), 127-141.
- Horn, I.S. (2012, March). Teacher discourse and the construction of school mathematics. *For the Learning of Mathematics*, 4-6.
- \* Ward, C. J., Nolen, S, B., & Horn, I. S. (2011). Productive friction: How conflict in student teaching creates opportunities for learning at the boundary. *International Journal of Educational Research*, 50, 14–20.
  - \* Nolen, S.B., Horn, I.S., & Ward, C.J. (2011, January). Assessment tools as boundary objects in novice teachers’ learning. *Cognition and Instruction*, 29(1), 88-122.
  - \* Horn, I.S. & Little, J.W. (2010, March). Attending to problems of practice: Routines and resources for professional learning in teachers’ workplace interactions. *American Educational Research Journal*, 47(1), 181-217. (Equal authorship)

- \* Horn, I.S. (2010, January). Teaching replays, teaching rehearsals, and re-visions of practice: Learning from colleagues in a mathematics teacher community. *Teachers College Record*, 112(1), 225-259.
  
- Horn, I.S. (2008, June). The inherent interdependence of teachers. *Phi Delta Kappan*, 751-754.
  
- \* Horn, I.S. (2008). Turnaround students in high school mathematics: Constructing identities of competence through mathematical worlds. *Mathematical Thinking and Learning*, 10(3), 201-239.
  
- \* Horn, I.S., Nolen, S.B., Ward, C., & Campbell, S.S. (2008). Developing practices in multiple worlds: The role of identity in learning to teach. *Teacher Education Quarterly*, 61-72.
  
- \* Horn, I.S. (2008). Accountable argumentation as a participation structure to support mathematical learning through disagreement. In A. Schoenfeld (Ed.) *A Study of Teaching: Multiple Lenses, Multiple Views*. Journal for Research in Mathematics Education monograph series. Reston, VA: National Council of Teachers of Mathematics.
  
- \* Horn, I.S. (2007). Fast kids, slow kids, lazy kids: Framing the mismatch problem in math teachers' conversations, *Journal of the Learning Sciences*, 16(1), 37-79.
  
- Horn, I. (2006, Spring). Teacher collaboration and ambitious teaching: Reflections on what matters. *New Horizons for Learning Online Journal*.
  
- \* Horn, I.S. (2006, Winter). Lessons learned from detracked mathematics departments. *Theory into Practice*, 45(1), 72-81.
  
- \* Horn, I.S. (2005). Learning on the job: A situated account of teacher learning in high school mathematics departments. *Cognition & Instruction*, 23(2), 207-236.
  
- Horn, I.S. (2004, November). Why do students drop advanced mathematics? *Educational Leadership*, 61-64.
  
- \* Little, J. W., Horn, I. S., & Bartlett, L. (2002). Identity, community & commitment: Emerging topics in research on high school teaching. *Revista de Educação/Journal of Education. (In Portuguese)*, 11(2), 9-20.

### ***Articles and Chapters In Progress***

Appelgate, M., Horn, I., Wilson, J. & Kane, B. (Under review). Putting the “L” into the PLC: Helping Teachers Learn Together. *Journal of Mathematics Education Leadership*.

Appelgate, M., Horn, I., Wilson, J. & Kane, B. (Under review). Strengthening Collaborative Time with Data. *Teaching Mathematics in the Middle School*.

**Articles in preparation**

Horn, I.S., Kane, B.D., Appelgate, M.H., Garner, B., Brasel, J.B., & Wilson, J. (In preparation) Understanding Access to Expertise in Teachers' Collaborative Work: An Exploratory Mixed Methods Approach.

Horn, I.S. & Kane, B.D. (In progress). What We Mean When We Talk About Teaching: Professionalizing Discourse and the Limits of Professional Language in Teachers' Conversations.

\* Garner, B., Kahn, J., & Horn, I. (In preparation). Teachers Interpreting Data for Instructional Decisions: Where Does Equity Come In? *Journal of Educational Administration*. (Invited manuscript).

**Book chapters**

Horn, I.S. (2015). Teachers Learning Together: Pedagogical Reasoning in Mathematics Teachers' Collaborative Conversations. In H. Lew (Ed.) *Selected Regular Lectures from the 12th International Congress on Mathematical Education*. Springer.

Horn, I.S. & Little, J.W. (2014). Learning from practice, together. In N.S. Nasir, C. Cabana, B. Shreve, E. Woodbury & N. Louie (Eds.) *Mathematics for Equity: A Framework for Successful Practice*. In the Multicultural Education Series. New York: Teachers College Press.

Horn, I.S. (2014). Teachers talking and learning together. In N.S. Nasir, C. Cabana, B. Shreve, E. Woodbury & N. Louie (Eds.) *Mathematics for Equity: A Framework for Successful Practice*. In the Multicultural Education series. New York: Teachers College Press.

Nolen, S.B., Ward, C.J., & Horn, I.S. (2014). Changing practice(s): A situative account of novice teachers' motivations to learn. In P. Richardson, H. Watt & Karabenick (Eds.) *Teacher Motivation: Theory and Practice*. New York: Routledge.

Horn, I.S. (2013). Teaching as Problem Solving: Collaborative Conversations as Found Talk-Aloud Protocols. In J. Mosckovich & Y. Li (Eds). *Mathematical proficiency and beliefs in learning and teaching: Learning from Alan Schoenfeld and Günter Toerner*. SensePublishers.

Horn, I.S., Nolen, S.B. & Ward, C.J. (2013). Recontextualizing practices: Situative methods for studying the development of motivation, identity and learning in and through multiple contexts over time. In M. Vauras & S. Volet (Eds). *Interpersonal Regulation of Learning and Motivation: Methodological Advances*.

- In the New Perspectives on Learning and Instruction Series. New York: Routledge.
- Nolen, S.B., Ward, C.J., & Horn, I.S. (2011). Motivation, engagement, and identity: Opening a conversation. In D.M. McInerney, R.A. Walker, & G.A.D. Liem (Eds.) *Sociocultural theories of learning and motivation: Looking back, looking forward*. Greenwich, CT: Information Age Press.
- Nolen, S. B., Ward, C. J., Horn, I. S., Childers, S., Campbell, S. S., & Mahna, K. (2009). Motivation development in novice teachers: The development of utility filters. In M. Wosnitza, S. A. Karabenick, A. Efklides & P. Nenniger (Eds.), *Contemporary Motivation Research: From Global to Local Perspectives* (pp. 265-278). Ashland, OH: Hogrefe & Huber.
- Little, J.W. & Horn, I.S. (2007). Resources for professional learning in talk about teaching. In L. Stoll & K. S. Louis (Eds.) *Professional Learning Communities: Divergence, Detail and Difficulties*. London: Open University Press.
- Horn, I.S. (2003). Helping, bluffing, and doing portfolios in a high school geometry classroom. In Beth Rubin and Elena Silva (Eds.), *Critical voices: Students living school reform*. New York: Routledge Press.

### ***Encyclopedia Entries***

- Horn, I.S. (2015). Teaching as a Profession: United States. pp. 75–82. In: James D. Wright (Ed.), *International Encyclopedia of the Social & Behavioral Sciences, 2nd edition*, Vol 24. Oxford: Elsevier.
- Horn, I.S. (2012). Mathematics, Collaborative Learning in. In James Banks (Ed.) *Encyclopedia of Diversity in Education*. Thousand Oaks, CA: Sage Publications.

### ***Technical Reports***

- Little, J.W., Horn, I.S., and Bartlett, L. (2000). *Teacher learning, professional community and accountability in the context of high school reform*. Final report to the National Program for Excellence and Accountability in Teaching, Office of Educational Research and Improvement, US Department of Education.
- Little, J.W. & Horn, I.S. (1998). *Teacher learning, professional community, and accountability in restructuring high schools: Site selection progress report*. Paper prepared for the National Program for Excellence and Accountability in Teaching, Office of Educational Research and Improvement, US Department of Education.
- Urquiola, M., Stern, D., Horn, I., Dornsife, C., & Chi, B. (1996). *School to work, college, and career: A review of policy, practice and results*. National Center for Research on Vocational Education.

## GRANT AWARDS

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### *Under Review*

Co-Principal Investigator (with Elizabeth Self, PI, Benjamin Dotger, co-PI). *Developing Teachers' Pedagogical Responsibility through Live Actor Simulations*. Spencer Foundation.

### *Funded*

Principal Investigator, *Supporting Instructional Growth in Mathematics (SIGMa): Enhancing Urban Secondary Teachers' Professional Learning through Formative Feedback*. September 2016 – August 2020. National Science Foundation, DRK12. \$1,711,132

Principal Investigator (with Melissa Gresalfi, co-PI). *Playful Mathematics: An Exploration of Design, Learning, and Engagement*. August 2016 – July 2017. National Science Foundation, DRL Core. \$198,593

Co-Principal Investigator (with Thomas Philip, PI, Jamy Stillman, co-PI). *Preparing asset, equity, and social-justice oriented teachers: challenge for the future of teacher education*. September 2016 – August 2017. Spencer Foundation Conference. \$49,990

Principal Investigator, *Data in conversation: Professional learning opportunities in teachers' data-centered collaborative talk*. Spencer Foundation, January 2013 – December 2015. \$298,817

Co-Principal Investigator (with Paul Cobb, PI, Kara Jackson, Thomas Smith, and Erin Henrick, co-PIs), *Investigating and Supporting the Development of Ambitious and Equitable Mathematics Instruction at Scale*. National Science Foundation, August 2011-July 2016. \$4.5 million

Principal Investigator, *Recontextualizing practices: Learning to teach rigorous and accessible mathematics in the high school*. Spencer/National Academy of Education Postdoctoral Fellowship. September 2007-August 2009. \$55K.

Principal Investigator, *Urban Teacher Scholars Program: Bridging Theory and Practice for Novice Teachers*. Funded by Teachers for a New Era Grant, Carnegie Foundation. September 2005 – June 2007. \$60K.

Co-Principal Investigator (with Susan Nolen, PI), *Role of multiple contexts in TEP students' development of teaching identity, interest and commitment to learning to teach*. Funded by Teachers for a New Era Grant, Carnegie Foundation. September 2004 – September 2008. \$222K.

Co-Principal Investigator (with James King, PI), *"PD<sup>3</sup>" Project*. Funded by the National Science Foundation through the Math-Science Partnership grants under the auspices of the Institute for Advanced Study/Park City Mathematics Institute.

Project involves a national partnership with the Park City Mathematics Institute and a local partnership with the Seattle Public Schools, focusing on professional development with secondary mathematics teachers. September 2003 – August 2008. \$1.0 million.

Co-Principal Investigator, *Building professional learning communities in mathematics: Enlarging content with natural resource applications*. Funded by the Office of the Superintendent of Public Instruction in Washington State. May 2004 –August 2006, \$366 K.

Proposer and Primary Researcher, *Examining the contexts and practices of effective high school algebra teachers*. Stanford University, Stanford, CA. Faculty sponsor: Jo Boaler. Funded by the American Educational Research Association and the Institute for Educational Sciences. June 2002 -June 2003, \$57 K.

Proposer and Coordinator, *Supporting teachers supporting students: Situated professional development to help all students succeed in high school algebra*, San Lorenzo High School, San Lorenzo, CA. Funded by the University of California Office of the President. August 2000 to June 2001, \$25 K.

## PRESENTATIONS

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### *Refereed Conferences*

Horn, I.S. & Garner, B. (2017, April). *Developing concepts in teacher workgroups*. American Educational Research Association annual meeting. San Antonio, TX.

Horn, I.S. & Self, E.A. (2017, April). *Framing and Re-framing Clinical Simulations to Develop Emergent Cultural Responsiveness*. American Educational Research Association annual meeting. San Antonio, TX.

Chen, I.C., Garner, B., Frank, K. & Horn, I.S. (2017, April). *From Conversation to Collaboration: How the Quality of Teacher Workgroup Meetings Influences Social Networks*. American Educational Research Association annual meeting. San Antonio, TX.

Chen, G.A., Horn, I.S. & Nolen, S.B. (2017, April). *Engaging Teacher Identities in Teacher Education: Attunement, Motivational Filters, and Pedagogical Judgment*. American Educational Research Association annual meeting. San Antonio, TX.

Garner, B., Horn, I.S., Kane, B.D., Appelgate, M.H., Wilson, J. & Brasel, J.T. (2017, April). *Using Standardized Test Data as a Starting Point for Inquiry*. American Educational Research Association annual meeting. San Antonio, TX.

Horn, I.S., Self, E.A. & Chen, G. (2016, June). *Cultural Responsiveness for Teaching: The Development of Pre-Service Teachers' Sensemaking in Clinical Simulations*.



- European Association for Research on Learning, SIG 11 (Teaching and Teacher Education) biennial conference, Zürich, Switzerland.
- Garner, B., Brasel, J.T. & Horn, I.S. (2016, June). *Scaffolding Into Ambitious Teaching: Representations of Practice in Teacher Workgroups*. International Conference of Learning Sciences, Singapore.
- Brasel, J.T. & Horn, I.S. (2016, April). *Concerted compliance with NCLB: The case of Cypress Middle School*. American Educational Research Association annual meeting. Washington, D.C.
- Garner, B. & Horn, I.S. (2016, April). *Epistemic Foundations of Educators' Data Use*. American Educational Research Association annual meeting. Washington, D.C.
- Horn, I.S. & Garner, B. (2015, August). Toward a taxonomy of instructional learning opportunities in teachers' collegial conversations. In a symposium *Teachers' Collegial Talk and Professional Learning: A View from Four Countries*. Biennial meeting of the European Association for Research on Learning and Instruction. Limassol, Cyprus.
- Horn, I.S. (2015, April). *A Framework for Analyzing Opportunities to Learn in Teachers' Workgroup Conversations*. In an interactive poster session *Design Principles for a Pedagogy of Teacher Education*. American Educational Research Association annual meeting. Chicago, IL.
- Horn, I.S., Kane, B.D., Yoon, I., Bannister, N., van Es, E. & Hand, V. (2014, June). *Teachers' Learning about Equitable Practices through Talk with Colleagues*. Symposium for the biennial meeting of the International Conference for the Learning Sciences. Boulder, CO.
- Horn, I.S., Kane, B.D. & Appelgate, M.A. (2014, April). *Opening Windows on the Classroom: Professionalizing Discourse in Teacher Collaborative Groups*. In a symposium for American Educational Research Association annual meeting, Philadelphia, PA.
- Horn, I.S., Bannister, N., Black, A., Fetter, A., Hedgpath, S., Lanier, J. & Vilson, J. (2014, April). *Colleagues 2.0: The MathTwitterBlogosphere and Mathematics Teachers' Professional Learning*. Discussion Session. National Council of Teachers of Mathematics research pre-session, New Orleans, LA.
- Horn, I.S. (2013, April). *The trouble with triage: What is lost in the quest for gains*. Roundtable on "Unintended consequences of NCLB." American Educational Research Association annual meeting, San Francisco, CA.
- Horn, I.S., Kane, B.D., & Wilson, J. (2013, April). *Facilitating and Representing Student Performance Data: Mathematics Teachers' Conversations with Assessments*.

- American Educational Research Association annual meeting, San Francisco, CA.
- Horn, I.S. & Kane, B.D. (2012, April). *The Development of Teachers Pedagogical Reasoning in Mathematics Teachers' Conversations*. American Educational Research Association annual meeting, Vancouver, B.C., Canada.
- Horn, I.S. & Campbell, S.S. (2012, April). *Mediated Field Experience as a Pedagogy for Teacher Education*. American Educational Research Association annual meeting. Vancouver, B.C., Canada.
- Larson, C., Wilson, J., Larbi-Cherif, A., & Horn, I. (2012, April). *District policy implementation: How enactment transforms plans for teacher collaborative time*. Paper presented at the Annual Meeting of the American Educational Research Association, Vancouver, BC.
- Horn, I.S. (2012, April). *Strength in Numbers: A Framework for Collaborative Learning in Secondary Mathematics*. National Council of Teachers of Mathematics annual meeting, Philadelphia, PA.
- Nolen, S.B., Ward, C.J., & Horn, I.S. (2010, May). *Studying motivation trajectories through longitudinal interviews*. American Educational Research Association annual meeting, Denver, CO.
- Bannister, N.A. & Horn, I.S. (2010, May). *Constructing student competence beyond the classroom: An analysis of mathematics teachers' conversations*. National Council of Teachers of Mathematics Research Pre-session, San Diego, CA.
- Horn, I.S. (2009, September). *The development of pedagogical content knowledge in collaborative high school teacher communities*. Psychology in Mathematics Education annual meeting, Atlanta, GA.
- Bannister, N.A. & Horn, I.S. (2009, August). *Re-framing failure: High school mathematics teachers' learning about struggling students*. European Association for Research on Learning biennial meeting, Amsterdam, The Netherlands.
- Horn, I.S. (2009, August). *Professional Learning Resources in Teachers' Workplaces: Implications for Novice Teachers*. European Association for Research on Learning biennial meeting, Amsterdam, The Netherlands.
- Horn, I.S. (2008, October). *Recontextualizing practices: Learning to teach rigorous and accessible mathematics in the high school*. National Academy of Education annual meeting. Seattle, WA.
- Horn, I.S. (2008, March). *Minding the Gaps: Recontextualizing practices in teacher education*. American Educational Research Association annual meeting, New York, NY.
- Horn, I.S. (2007, October). *Supporting Struggling Students in the High School*. Northwest Mathematics Conference, Bellevue, WA.

- Nolen, S.B., Ward, C., & Horn, I.S. (2007, August). *The social construction of goals and definitions of success in learning contexts*. European Association for Research on Learning biennial meeting, Budapest, Hungary.
- Nolen, S.B., Ward, C., Horn, I.S., Campbell, S.S., Manha, K., & Childers, S. (2007, August). *Interest and identity in the practice of beginning teachers*. European Association for Research on Learning biennial meeting, Budapest, Hungary.
- Bier, M., Horn, I.S., Campbell, S.S., Kazemi, E., Hintz, A., Peterson, M., Stevens, R., Saxena, A., & Peck, C. (2007, April). *Design for simultaneous renewal in university-public school partnerships: Hitting the "sweet spot."* American Educational Research Association annual meeting, Chicago, IL.
- Nolen, S.B., Ward, C., Horn, I.S., Campbell, S.S., Manha, K. & Childers, S. (2007, April). *Motivation to learn during student teaching*. American Educational Research Association annual meeting, Chicago, IL.
- Horn, I.S. (2006, August). *Teaching replays, teaching rehearsals, and principled revisions: Learning from colleagues in a mathematics teacher community*. European Association for Research on Learning, SIG on Teaching and Teacher Education biennial conference, Garryvoe, Ireland.
- Horn, I.S. (2006, April). *Teaching the turnarounds: Collective responsibility for student learning*. National Council of Teachers of Mathematics, Research Pre-session, St. Louis, MO.
- Horn, I.S. (2006, April). *Lessons learned from detracked mathematics departments*. American Educational Research Association annual meeting, San Francisco, CA.
- Little, J.W. & Horn, I. (2006, April). *Resources for professional learning in talk about teaching: From "just talk" to consequential conversation*. American Educational Research Association annual meeting, San Francisco, CA.
- Horn, I.S. (2006, April). *Turnaround students in high school mathematics: The department's role in student persistence and identity construction*. American Educational Research Association annual meeting, San Francisco, CA.
- Horn, I.S. (2005, October). *Discourse that promotes mathematical reasoning: An analysis of an effective algebra teacher*. Psychology in Mathematics Education-North America Conference. Roanoke, Virginia.
- Nolen, S.B., Horn, I.S., Ward, C., Stevens, R. & Estacio, K. (2005, August). *When worlds collide: Negotiating competing views of teaching across social contexts and the effect on student teachers' motivation to learn*. Paper presented at the 10<sup>th</sup> biennial meeting of the European Association for Research on Learning, Nicosia, Cyprus.
- Nolen, S. B., Ward, C. J., Horn, I. S., Stevens, R., & Estacio, K. (2005, August). *Relatedness in preservice teacher education*. Paper presented at the 10<sup>th</sup> biennial

- meeting of the European Association for Research on Learning and Instruction, Nicosia, Cyprus.
- Horn, I.S. (2005, April). *Share, compare, and analyze: Discourse that coordinates the social and mathematical in an inquiry-oriented classroom*. American Educational Research Association annual meeting, Montréal, Quebec, Canada.
- Horn, I.S. (2004, October). *Developing conceptually transparent language for teaching through collegial conversations*. Psychology in Mathematics Education-North America Conference, Toronto, Ontario, Canada.
- Horn, I.S. (2004, April). *Persistence in mathematics as an enactment of student identity*. American Educational Research Association annual meeting, San Diego, CA.
- Horn, I.S. (2002, April). *In pursuit of group-worthy problems: Resources for teacher learning in an inquiry-oriented mathematics department*. American Educational Research Association annual meeting, New Orleans, LA.
- Horn, I.S. (2001, April). *Fast kids, slow kids, lazy kids: Conceptions of students and subject matter in two high school math departments*. American Educational Research Association annual meeting, Seattle, WA.
- Horn, I.S. (1999, April). *Accountable argumentation as a participant structure to support mathematical learning through disagreement*. American Educational Research Association annual meeting, Montréal, Quebec, Canada.
- Horn, I.S. (1999, October). *The role of representations in students' mathematical argumentation*. Poster presented at Psychology in Mathematics Education-North America Conference, Cuernavaca, Morelos, Mexico.
- Horn, I.S. (1998). *Performing assessments, transforming practices: Doing portfolios in a high school geometry classroom*. Ethnography in Education Conference, University of Pennsylvania, Philadelphia.

### ***Invited Presentations and Workshops***

- Horn, I.S. (2016, November). *Designing a Motivational Classroom: Inviting Student Participation in Mathematical Discussions*. Invited Address. National Council of Teachers of Mathematics Innov8: Engaging the Struggling Learner Conference. St. Louis, MO.
- Horn, I.S. (2016, October). *The Motivational Mathematics Classroom: Building Spaces for Student Participation*. Keynote Address. Math Council of the Alberta Teachers' Association. Canmore, Alberta, Canada.

- Horn, I.S. (2016, September). *What Does it Mean to Know in Teaching?: New Views of Learning and Approaches to Research on Teaching*. Keynote Address. Hyogo University of Teacher Education, 20<sup>th</sup> Anniversary. Kobe, Japan.
- Horn, I.S. (2016, July). *Solving Inequalities in Mathematics Education*. Keynote Address. National Forum for the Carnegie Community College Pathways. San Francisco, CA.
- Horn, I.S. (2016, May). *What does it mean to know in teaching? Exploring implications for teacher education*. Boeing Chair Lecture. College of Education, University of Washington. Seattle, WA.
- Horn, I.S. (2016, April). *The Relational Work of Math Teaching: Why Good Colleagues Matter*. National Council of Teachers of Mathematics. San Francisco, CA.
- Horn, I.S. (2016, February). *What does it mean to know in teaching? Some implications for teacher education*. Cooper Lecture Series. Curry School of Education, University of Virginia. Charlottesville, VA.
- Horn, I.S. (2016, January). *Addressing Challenges in Partnerships*. Panelist for the Research + Practice Collaboratory. Boulder, CO.
- Horn, I.S. (2016, January). *Playing with Mathematical Ideas: Strategies for Building a Positive Classroom Climate*. Reinventing Mathematics Education event. The Willows Community School. Culver City, CA.
- Horn, I.S. (2015, July). *Growing our own practice: How mathematics teachers can use social media to support ongoing improvement*. Keynote address. Twitter Math Camp, Claremont, CA.
- Horn, I.S. (2015, May). *Policy, Organizational Logics, and Teacher Learning*. Symposium presentation. Research in Cognition and Mathematics Education conference. Berkeley, CA.
- Horn, I.S. (2015, May). *What Do You Think and Why? Relational Competence in Mathematics Teaching*. Keynote address, Saskatchewan Mathematics Teachers' Society Annual Conference. Saskatoon, SK, Canada.
- Horn, I.S. (2015, April). Mathematics teachers' concept development in school as a workplace. Inaugural Symposium for Klaas van Veen, Director of Teacher Education. *Becoming a Learning Teacher*. University of Groningen, Groningen, Holland.
- Horn, I.S. (2014, September). *Beyond Core Practices: Developing Pedagogical Judgment in Teacher Education*. Advancing Research, Design and Practice in Teacher Education Conference. Berkeley, CA.

- Horn, I.S. (2014, July). *“What do you think and why?” Delving into uncertainty with students*. Reflection on Practice Session, Park City Mathematics Institute Summer School Teacher Program. Park City, UT.
- Horn, I.S. (2013, December). *Teachers Learning Together: Teachers’ Collaborative Conversations as a Resource for Learning*. Faculty Lecture, Department of Education, University of Haifa. Haifa, Israel.
- Horn, I.S. (2013, November). *Putting the “L” in PLCs: A framework for productive teacher conversations*. Oranim Academic Education College, Tivon, Israel.
- Horn, I.S. (2013, November). *Opportunities to Learn in Mathematics Teachers’ Collaborative Conversations*. Educational Sciences, Weizmann Institute of Technology, Tel Aviv, Israel.
- Horn, I.S. (2013, November). *Opportunities to Learn in Teachers’ Collaborative Conversations*. Ben-Gurion University, Bar Sheva, Israel.
- Horn, I.S. (2013, November). *Getting Students to Think Mathematically in Cooperative Groups*. Mathematics Education Department, University of Haifa, Haifa, Israel.
- Horn, I.S. (2013, October). *Teachers Learning Together: A Framework for Productive Collaborative Conversations*. Featured Speaker, Northwest Mathematics Conference. Bellevue, WA.
- Horn, I.S. (2012, November). *The potential impact of the Common Core Standards on K-12 Education*. Small group discussion with NAE/Spencer postdoctoral and dissertation fellows. National Academy of Education, Washington, DC.
- Horn, I.S. (2012, October). *Reculturing schools to support equitable mathematics instruction*. Vanderbilt University Peabody College Leadership, Policy, and Organization Colloquium, Nashville, TN.
- Horn, I.S. (2012, August). *Getting students to think mathematically*. Math for America Teacher Institute, New York, NY.
- Hannula, M., Leder, G., Horn, I. & Toerner, G. (2012, July). *Methodological issues in Affect Research: Distinguishing between ‘state’ and ‘trait’ in mathematics education research*. Roundtable organized by B. Roesken & B. Pepin for the International Congress in Mathematics Education, Seoul, Korea.
- Horn, I.S. (2012, July). *Teachers Learning Together: Pedagogical Reasoning in Mathematics Teachers’ Collaborative Conversations*. Invited Regular Lecture, International Congress in Mathematics Education, Seoul, Korea.

- Horn, I.S. (2012, June). *Achievement gaps or opportunity gaps? Increasing opportunities to learn in the secondary mathematics classroom*. Achievement Gap Institute, Vanderbilt University's Peabody College, Nashville.
- Horn, I.S. (2011, September). *Tracing the Development of Mathematics Teachers' Collaborative Conversations*. Leiden University, Amsterdam, Holland.
- Horn, I.S. (2011, September). *(Ir)rational Claims about Learning: Teacher Discourse and the Construction of School Mathematics*. International Society for Cultural and Activity Research. Rome, Italy.
- Horn, I.S. (2008, August). *Teacher collaborations around mathematics*. Transitions Mathematics Project. Leavenworth, WA.
- Horn, I.S. (2008, May). *Beyond 'beliefs': Identifying learning resources in teacher communities*. Curriculum and Instruction Faculty Lecture Series. University of Washington.
- Horn, I.S. (2008, May). *Beyond 'beliefs': Identifying learning resources in mathematics teacher communities*. Center for Mathematics Education Colloquium, University of Maryland, College Park, MD.
- Nolen, S.B., Horn, I.S., Ward, C.J., Campbell, S.S., Childers, S., and Manha, K. (2008, February). *Becoming teachers: A situative look at learning, motivation, and identity*. Teachers for a New Era Learning Forum, University of Washington.
- Horn, I.S., Campbell, S.S. & King, J. (2007, January). *Urban Teacher Scholars: Bridging Theory and Practice for Novice Teachers*. Teachers for a New Era Learning Forum, University of Washington.
- Peck, C., Horn, I.S., & King, J. (2006, December). *Collaboration among Teacher Education, Arts and Sciences, and Public Schools*. Teachers for a New Era Arts and Science Luncheon. University of Washington.
- Horn, I.S. (2006, November). *Teaching replays, teaching rehearsals, and re-visions of practice*. SRI International, Menlo Park, CA.
- Horn, I.S. (2006, June). *What's happening in mathematics education?* College of Education Emeritus Faculty Lunch, University of Washington.
- Horn, I.S. (2006, May). Discussant for a live example of equitable teaching practice. Raising the floor: Progress and setbacks in the struggle for quality mathematics education for all. Mathematical Sciences Research Institute, Berkeley, CA.

- Horn, I.S. (2005, November). *What we know about effective mathematics education*. Policymakers Exchange, University of Washington.
- Horn, I.S. (2005, July). *So you want to be a mathematics educator?* Park City Mathematics Institute, Park City, UT.
- Horn, I.S. (2005, March). *Struggling students in the high school mathematics classroom*. Seattle Public Schools.
- Horn, I.S. (2004, August). *Planning coherent units for middle school mathematics*. Northwest Mathematics Interaction, University of Washington.
- Horn, I.S. (2004, May). *Re-thinking persistence in high school mathematics*. University of Washington College of Education, Center Connect.
- Horn, I.S. (2004, May). *Engaging all students in mathematical thinking: 'Group-worthy' problems in the classroom*. Puget Sound Council of Teachers of Mathematics.
- Horn, I.S. (2004, February). *Math methods microteaching: A performance assessment for pre-service teachers*. University of Washington, Teacher Education Program.
- Horn, I.S. (2004, February). *Creating equitable mathematics classrooms through a department community*. Northwest Mathematics Interaction/Park City Mathematics Institute, Seattle, WA.
- Horn, I.S. & Cabana, C. (2002). *Mathematics reform in the classroom*. Principal Leadership Institute, Berkeley, CA.
- Horn, I.S. & Aguirre, J. (2001). *Mathematics reform in the classroom*. Principal Leadership Institute, Berkeley, CA.
- Horn, I.S. (2000, April). *The California High School Exit Exam*. Panel presentation hosted by the Berkeley Evaluation and Assessment Research Group, University of California, Berkeley.
- Horn, I.S. (1998, July). *Mathematics education reform in California: Seeking sensible ground in the "math wars."* Kumon Mathematics and Reading Centers, Belmont, CA.

#### *TEACHING*

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**Professor**, Department of Teaching and Learning, Peabody College, Vanderbilt University, 2015 to present.

**Associate Professor**, Department of Teaching and Learning, Peabody College, Vanderbilt University. 2009 to 2015.



EDUC 3160            Scientific Writing  
MTED 2360/2370    Advanced Teaching of Mathematics in Secondary Schools  
EDUC 3700.003      Discourse and Learning Research Group  
EDUC 3900.06       Discourse in STEM Classrooms  
EDUC 3040           Teaching as a Social Practice

*Doctoral student advising:* Britnie Kane (PhD 2016), Jason Brasel, Brette Garner, Lara Heiberger, Elizabeth Self, Grace Chen

***Assistant Professor***, College of Education, University of Washington, 2003 to present  
Teaching Mathematics in the Secondary School I  
Teaching Mathematics in the Secondary School II  
Inside Teacher Communities  
Seminar in Mathematics Education: Classroom Discourse  
Mathematics Education Research Group

***Mathematics Instructor***

University of California, Berkeley, Academic Talent Development Program, 1999  
California State University, Hayward, Summer Bridge Program, 1995, 1996

***High School Mathematics Teacher***

San Lorenzo High School, San Lorenzo, CA, 1999-2000  
Alameda High School, Alameda, CA, 1993-1995

**SERVICE**

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***Ad Hoc Reviewer***

*American Educational Research Journal*

*American Journal of Education*

*Journal of Teacher Education*

*Mathematical Thinking and Learning*

*Cognition & Instruction*

*Educational Researcher*

*Journal of the Learning Sciences*

*Leadership and Policy in Schools*

*Equity and Excellence in Education*

*Review of Research in Education*

*Teachers College Record*

*Teaching and Teacher Education*

*Leadership and Policy in Schools*

*Sociology of Education*

*ZDM*

American Educational Research Association, Divisions C, G, K, and SIG

RME

Psychology in Mathematics Education-North America

International Conference on Learning Sciences

### *University and Community*

2016- present	Mentoring Committee, Luis Leyva
2015-16	Chair, Elementary Mathematics Faculty Search
2015	Provost Dissertation Supplemental Award Committee
2014-15	Chair, Mathematics Practice Faculty Search
2015- present	Mentoring Committee, Teresa Dunleavy
2014 – present	Mentoring Committee, Andrew Hostetler
2013 – present	Mentoring Committee, Ebony McGee
2013	Provost Graduate Award Committee
2013	Department of Teaching and Learning Dissertation Award Committee
2012-2013 2014-2016	Mathematics and Science Education Area Chair
2012-2013	Mentoring Committee, Lanette Waddell
2011-2012	Peabody College Ad Hoc Committee on Academic Honesty
2009-2011	Elementary Mathematics Education Faculty Search
2004-2009	Consultancies with Seattle Public High Schools
2004-2009	Consultant, University of Washington GEAR-UP project
2005-2006	College of Education Futures Committee
2004-2005	Zesbaugh Scholarship Committee
2003-2004	Strengthening and Sustaining Teachers Advisory Board
2005-2006	Panelist, Community Mathematics Panels, Seattle Public

## Schools

- 2007–2009 Renewal of Secondary Teacher Education Program
- 2008- 2009 Doctoral Program Renewal Committee, College of Education
- 2004-2009 Consultant, University of Washington GEAR-UP project
- 2008-2009 University Field Committee on Teacher Education
- 2008-2009 Congregation Beth Shalom Religious School Committee

## *National*

- 2016 – present Advisory Board, TRUmath and Lesson Study
- 2016 Advisory Panel, Practices for Teaching Content (PTC) component of the National Observational Teaching Exam (NOTE). Educational Testing Service.
- 2015-2017 Co-chair, Research in Mathematics in Education SIG, American Educational Research Association
- 2014 Reviewer, CAREER Grant Proposals, National Science Foundation
- 2012 - 2014 Advisory Board, Accessing Algebra Through Inquiry (a2i)
- October 2012 Expert convening for Carnegie Association for Advancing Teaching, Creating Pathways for Student Success in Community Colleges
- 2006-2010 Association for Women in Mathematics, Educational Committee
- 2005-2006 Knowles Science Teaching Foundation, Conference Advisory Committee

## *International*

- 2015-2016 Senior Reviewer, International Conference on Learning Sciences, Singapore.
- 2014 – 2016 Review Board, *International Journal of Teacher Leadership*
- 2015 Reviewer, IWT [The Agency for Innovation of the Flemish Government], Belgium.

- 2015            Reviewer, Social Sciences and Humanities Research Council, Ontario, Canada.
- 2012-2014      Organizing committee for the International Conference on Learning Sciences, Boulder, CO.
- 2013            Reviewer, Rothschild Foundation Postdoctoral Fellowships, Jerusalem, Israel.
- 2011            Reviewer, Association of Swedish Mathematics Teachers
- 2011            Reviewer, Israeli Science Foundation

**PROFESSIONAL AFFILIATIONS**

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American Educational Research Association, (Division K, SIG Research in Mathematics Education)  
International Society of the Learning Sciences  
European Association of Research on Learning and Instruction  
National Council of Teachers of Mathematics  
Psychology in Mathematics Education, North America

**LANGUAGES**

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French: Speak, write, read fluently  
Spanish: Speak, write, read functionally  
Hebrew: Speak, write, read basically