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#### **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

#### **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, equitable mathematics teaching

#### **ACADEMIC POSITIONS**

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- 2009 to present **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, Stanford, CA.
- 1995- 2002 **Research Assistant**, University of California, Berkeley, with Judith Warren Little, Alan Schoenfeld, Phil Daro and David Stern.

#### **HONORS**

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- 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

## PUBLICATIONS

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

- \* Horn, I.S. & Little, J.W. (In press). Attending to problems of practice: Routines and resources for professional learning in teachers' workplace interactions. *American Educational Research Journal*.
- \* Horn, I.S. (In press). Teaching replays, teaching rehearsals, and re-revisions of practice: Learning from colleagues in a mathematics teacher community. *Teachers College Record*.
- 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.

### **Book chapters**

Nolen, S.B., Ward, C.J., Horn, I.S., Childers, S., Campbell, S.S., & Manha, K. (In press). Motivational development in novice teachers: The development of utility filters. *International Conference on Motivation*.

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.

### **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.

### **Articles In Progress**

Nolen, S.B., Ward, C.J., Horn, I.S., and Childers, S. (Revised & Resubmitted). A situative perspective on motivation to learn. *Educational Psychologist*.

Ward, C.J., Horn, I.S., Nolen, S.B., and Childers, S. (Revise & Resubmit). The relationship between motivation and identity in novice teachers: A synthesis of social approaches. *Educational Psychologist*.

Horn, I.S., Nolen, S.B., & Ward, C.J. (In preparation). Recontextualizing practices from coursework to the field: Novice teachers' adaptation and coordination of interactive methods.

#### **GRANT AWARDS**

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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, *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, "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. & Bannister, N.A. (Under review). *Constructing student competence beyond the classroom: An analysis of mathematics teachers' conversations*. American Educational Research Association annual meeting, Denver, CO.
- 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. (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-revisions 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.

## **SERVICE**

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### ***Reviewer***

*Mathematical Thinking and Learning*

*Cognition & Instruction*

*Educational Researcher*

*Journal of the Learning Sciences*

*Equity and Excellence in Education*

*Teachers College Record*

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

Psychology in Mathematics Education-North America

### ***University and Community***

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

2008-2009      University Field Committee on Teacher Education

2008-2009      Congregation Beth Shalom Religious School Committee

### ***National***

2006-present      Association for Women in Mathematics, Educational Committee

2005-2006      Knowles Science Teaching Foundation, Conference Advisory Committee

*TEACHING EXPERIENCE*

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

**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

**PROFESSIONAL AFFILIATIONS**

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American Educational Research Association  
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