

Tesha Sengupta-Irving, PhD
2121 Berkeley Way | Berkeley, CA 94704
(510) 664-4549 | tsi@berkeley.edu

Academic Appointments

Associate Professor of Learning Sciences, STEM Education
University of California, Berkeley: 2021-Present

Assistant Professor of Learning Sciences, STEM Education
University of California, Berkeley. 2019 - 2021

Assistant Professor of the Learning Sciences/Mathematics Education
Vanderbilt University. 2016 - 2019

Assistant Professor of Mathematics Education
University of California, Irvine. 2011-2016

Assistant Director of Research
CONNECT: A Center for Research and Innovation in Elementary Education
University of California-Los Angeles 2009-2011

Postdoctoral Researcher
University of California-Los Angeles 2009-2011

Education

Ph.D. Mathematics Curriculum & Teacher Education
Stanford University, January 2009

Bachelor of Science in Electrical Engineering, International Minor in Japanese Studies
University of Illinois, Urbana-Champaign, 1999

California Single-Subject Clear Credential
California Commission on Teacher Credentialing, 2000-16

Honors and Awards

2018 Outstanding Reviewer Award, Journal of Urban Mathematics Education
2014 Dean's Honoree for Excellence in Undergraduate Teaching, UC Irvine
2014 Hellman Fellowship, Hellman Foundation
2008 Dissertation Fellowship, Spencer Foundation
2004 *FouthR* Educator, Amnesty International Educator Newsletter Profile
2003 Morgridge Family Fellow, Stanford University

- 2003 Teaching Award, Centennial High School, Compton Unified School District
- 1996 Electronic Data Systems Scholar, University of Illinois Urbana-Champaign

Research Grants and Projects

Externally Funded

- 2021 Lucretia Goldsmith Foundation (\$10k, PI). Strengthening Bridges: A Case Study of Co-Design for a Summer Math Bridge Program.
- 2013 Nicholas Endowment (\$50K, PI). An Engineering & Education Collaborative: Teacher Professional Development, a joint venture of the UCI Schools of Education & Engineering
- 2006 Spencer Foundation Research Training Grant (\$7K, PI). A case study of organizing for equitable collaborative learning in a low-track Algebra class.

Internally Funded

- 2017 PI. STEAMing Ahead: Perceptions of STEAM Learning in Middle Schools
- 2016 Peabody College Small Research Award (\$10K, Co-PI). Exploring Youth Expert Identity Formation in an Informal Learning Space
- 2010 PI. At the risk of sharing: Student perceptions of academic and social risk when sharing problem solving strategies in Algebra
- 2009 Co-PI. A curricular contrast: Comparing student engagement and achievement across two 5th grade math lessons

Refereed Publications

Journal Articles

26. **Sengupta-Irving, T.** & Schiffrin-Sands, L. (2023). Principals, paradigms, and possibilities: STEAM education reform and the centering of Black life. *Urban Education*, 1-35.
25. **Sengupta-Irving, T.**, Vogelstein, L., Brady, C., & Phillips-Galloway, E. (2022). Prolepsis & telos: Interpreting pedagogy and recovering imagination in the mediation of youth learning. *Journal of the Learning Sciences.*, 1-39.
24. **Sengupta-Irving, T.** (2021). Positioning and positioned apart: Mathematics learning as becoming undesirable. *Anthropology & Education Quarterly*, 52(2), 187-208.
23. McKinney de Royston, M., **Sengupta-Irving, T.**, ⁺Cosby, M. (2021). Radical Reimagining: Problematizing studies of mathematical identit(ies) among racially minoritized youth. In J.

Langr-Osuna & N. Shah (Eds.), *Journal for Research in Mathematics Education Monograph Series*, pp. 59-82.

22. **Sengupta-Irving, T.**, ⁺⁺Tunney, J. & ⁺Macias, M. (2021). Stories of garlic, butter and ceviche: Racial-ideological micro-contestation and microaggressions in secondary STEM professional development. *Cognition and Instruction*, 39(1), 65-84.
21. **Sengupta-Irving, T.** & Vossoughi, S. (2019). Not in their name: Re-interpreting discourses of STEM learning through the subjective experiences of minoritized girls. *Race Ethnicity and Education*, 22(4), 479-501.
20. ⁺⁺⁺McKinney de Royston, M. & **Sengupta-Irving, T.** (2019). Another step forward: Engaging the political in learning, *Cognition and Instruction*, 37(3), 277-284.
19. ⁺Agarwal, P. & **Sengupta-Irving, T.** (2019). Integrating power to advance the study of Connective and Productive Disciplinary Engagement in mathematics and science. *Cognition and Instruction*, 37(3), 349-366.
18. **Sengupta-Irving, T.** & ⁺Agarwal, P. (2017). Conceptualizing perseverance in problem solving as collective enterprise. *Mathematical Thinking and Learning*, 19(2), 115-138.
17. **Sengupta-Irving, T.** & ⁺Mercado, J. (2017). Anticipating change: An exploratory analysis of teachers' conceptions of engineering in an era of science education reform. *Journal of Pre-College Engineering Education Research (J-PEER)*, 7(1), 108-122.
16. **Sengupta-Irving, T.** (2016). Doing things: Organizing for agency in mathematical learning. *The Journal of Mathematical Behavior*, 41, 210-218.
15. Boaler, J. & **Sengupta-Irving, T.** (2016). The many colors of algebra: The impact of equity focused teaching upon student learning and engagement. *The Journal of Mathematical Behavior*, 41, 179- 190.
14. **Sengupta-Irving, T.** & Enyedy, N. (2015). Why engaging in mathematical practices may explain stronger outcomes in affect and engagement: Comparing student-driven with highly-guided inquiry. *Journal of the Learning Sciences*, 24(4), 550-592.
13. **Sengupta-Irving, T.** (2014). Affinity through mathematical activity: Cultivating democratic learning communities. *Journal of Urban Mathematics Education*, 7(2), 31-54.
12. **Sengupta-Irving, T.**, ⁺Redman, E., & Enyedy, N. (2013). Re-storying practice: Using stories about students to advance mathematics education reform. *Teaching and Teacher Education*, 31, 1-12.
11. ⁺Michener, C. J., **Sengupta-Irving, T.**, Proctor, C. P., & Silverman, R. (2013). Culturally sustaining pedagogy within monolingual language policy: Variability in instruction. *Language Policy*, 14(3), 199-220.

Conference Proceedings

10. **Sengupta-Irving, T.**, ⁺Vogelstein, L., Brady, C. & Phillips-Galloway, E. (2020, June). “The pedagogical moves of artist mentors in a library makerspace.” *Proceedings of the 14th International Conference of the Learning Sciences*. (Nashville, TN). 19-23 June. 2020.
9. **Sengupta-Irving, T.** (2020, June). “Mathematics learning and the neoliberal making of undesirability.” *Proceedings of the 14th International Conference of the Learning Sciences*. (Nashville, TN). 19-23 June. 2020.
8. **Sengupta-Irving, T.** (2020, June). “When dissent and debate risk fracturing mathematics learning communities.” *Proceedings of the 14th International Conference of the Learning Sciences*. (Nashville, TN). 19-23 June. 2020.
7. **Sengupta-Irving, T.**, ⁺⁺Tunney, J. & ⁺Macias, M. (2020, June). “Stories of garlic, butter and ceviche: The slippage between microcontestations and microaggressions in a case of STEM teacher learning.” In N. Davis & P. Hooper (Chairs), Taking on the task of reimagining teacher education: Positioning teachers as emergent learning scientists within complex political and ethical ecologies. *Proceedings of the 14th International Conference of the Learning Sciences*. (Nashville, TN). 19-23 June. 2020.
6. **Sengupta-Irving, T.**, ⁺Vogelstein, L., Brady, C., & Phillips-Galloway, E. (2018, June). “Mentors in the making: A case study of heterogeneity in meaning making at a public library makerspace.” *Proceedings of the 13th International Conference of the Learning Sciences*. (London, UK). 23-27 June. 2018.
5. ⁺Agarwal, P. & **Sengupta-Irving, T.** (2018, June). “Power in the digital age: A critical revision to Productive Disciplinary Engagement.” *Proceedings of the 13th International Conference of the Learning Sciences*. (London, UK). 23-27 June. 2018.
4. **Sengupta-Irving, T.** (2015, November). “Tell them we are rising: Serving more than a pipeline through humanistic STEM learning.” In S. Vossoughi, C. Malsbary & F. Erickson (Chairs), What is an anthropology of learning?: Revisiting the past to shape the future. *Proceedings of the 114th American Anthropological Association Meeting*. (Denver, CO). 18-22 Nov. 2015.
3. Stinson, D. W., & Bullock, E. C. (2015). Exploring different theoretical frontiers: A symposium (Presenters: Drs. I. Esmonde, E. Gutstein, **T. Sengupta-Irving**, D. Martin, & N. Shah; Discussant: Dr. R. Gutiérrez). In S. Mukhopadhyay & B. Greer (Eds.), *Proceedings of the Eighth International Mathematics Education and Society Conference* (MES8, Vol. 1, pp. 133–138). Portland, OR.
2. **Sengupta-Irving, T.** & Enyedy, N. (2014). “Smiles don’t count: A case study of unifying disciplinary engagement with dispositions in the study of mathematical learning.” *Proceedings of the 11th International Conference of the Learning Sciences*. (Boulder, CO). 23-27 June. 2014.

1. **Sengupta-Irving, T.** (2007). "In cooperation: A case study of student interactions and the social space of math collaborations." *Proceedings for the 29th Annual Meeting of the American Chapter of International Group for the Psychology of Mathematics Education* (Stateline, NV). 25 Oct. 2007.

Edited Books and Book Chapters

6. ⁺⁺⁺**Sengupta-Irving, T.** & McKinney de Royston, M. (Eds.). (*in press*). *STEM and the social good: Forwarding political and ethical perspectives in the Learning Sciences*. Routledge.
5. **Sengupta-Irving, T.** & ⁺Yeh, C. (2014). Critical pedagogy. In S. Thompson (Ed.) *Encyclopedia of Diversity and Social Justice*. Lanham, MD: Rowman & Littlefield Publishing.
4. Boaler, J. & **Sengupta-Irving, T.** (2012). Gender equity and mathematics education. In J.A. Banks (Ed.) *Encyclopedia of diversity in education* (pp. 973-976). Thousand Oaks, CA: SAGE Publications.
3. Gutiérrez, K., **Sengupta-Irving, T.**, & Dieckmann, J. (2010). Developing a mathematical vision: Mathematics as a discursive and embodied practice. In J. Moschkovich (Ed.), *Language and mathematics education: Multiple perspectives and directions for research* (pp. 29-71). Charlotte, NC: Information Age Publishing, Inc.
2. Boaler, J. & **Sengupta-Irving, T.** (2007). Mathematics. In B.J. Bank, S. Delamont, C. Marshall (Eds.), *Gender and education: An encyclopedia* (pp. 287-293). Westport, CT: Praeger.
1. Boaler, J. & **Sengupta-Irving, T.** (2006). Nature, neglect and nuance: Changing accounts of sex, gender and mathematics. In C. Skelton, B. Francis, L. Smulyan (Eds.). *The SAGE handbook of gender and education* (pp. 252-264). Thousand Oaks, CA: SAGE Publications.

Monographs

- Gutiérrez, K., **Sengupta-Irving, T.**, & Dieckmann, J. (2007). Developing a mathematical vision: Mathematics as a discursive and embodied practice. *Monograph for the Spencer Foundation*.

Refereed Conference Presentations

15. McKinney de Royston, **Sengupta-Irving T.**, & ⁺Cosby, M. (2019, April). (Re)imagining mathematical identities: Positioning, positionality, and dispositions in mathematics education research. In N. Shah (Chair), *Advancing methods for studying social identities in mathematics education: New possibilities and perspectives*. Symposium conducted at the annual meeting of the American Educational Research Association, Toronto, ON.
14. **Sengupta-Irving T.**, ⁺Vogelstein, L., Brady, C., & Phillips-Galloway, E. (2019, April).

- Democratizing what: A case study of how mentors in a public library makerspace organize toward expansive possibilities. In S. Vossoughi (Chair), *Educational dignity in making and engineering spaces: Developing close accounts of expansive pedagogy, learning, and self-determination*. Symposium conducted at the annual meeting of the American Educational Research Association, Toronto, ON.
13. **Sengupta-Irving T.** & Vossoughi, S. (2019, April). Not in their name: Reinterpreting discourses of STEM learning through the subjective experiences of minoritized girls. In S. Vakil (Chair), *Disrupting 'truth': Theorizing the cultural politics of STEM education through a plurality of perspectives*. Symposium conducted at the annual meeting of the American Educational Research Association, Toronto, ON.
 12. **Sengupta-Irving, T.** & ⁺⁺McGrath, C. (2019, April). Dissent or discord?: A case study of mathematics debate as a learning opportunity. Roundtable presentation at the annual meeting of the American Educational Research Association, Toronto, ON.
 11. ⁺Agarwal, P. & **Sengupta-Irving, T.** (2018, June). Recognizing power as a lens to advance the study of Productive Disciplinary Engagement. Paper presentation at the annual meeting of the American Educational Research Association, New York, NY.
 10. **Sengupta-Irving, T.**, ⁺Vogelstein, L., Brady, C. & Phillips-Galloway, E. (2018, June). Mentors in the making: A case study of heterogeneity in meaning making at a public library makerspace. Poster presentation at the 13th International Conference of the Learning Sciences, London, UK.
 9. **Sengupta-Irving, T.** (2017, April). Layered positions: Coordinating institutional and interactional analyses of student failure in mathematics. Paper presentation at the annual meeting of the American Educational Research Association, San Antonio, TX.
 8. **Sengupta-Irving T.**, ⁺⁺Tunney, J. & ⁺Macias, M. (2017, April). Relinquishing what we think is true: Teachers contesting what counts as “real” math/science learning. In T. Sengupta-Irving (Chair), *What should be the 'mathematics' in mathematics education?* Symposium conducted at the annual meeting of the American Educational Research Association, San Antonio, TX.
 7. Esmonde, I. & **Sengupta-Irving, T.** (2015, April). Leveraging feminist theory to disrupt mathematics education research. In D. W. Stinson & E. C. Bullock (Chairs), *Exploring different theoretical frontiers in mathematics education research: Toward an empowering mathematical experience for all*. Symposium conducted at the annual meeting of the American Educational Research Association, Chicago, IL.
 6. **Sengupta-Irving, T.** & Esmonde, I. (2015, April). Leveraging feminist theory to disrupt gendered mathematics teaching and learning. In D.W. Stinson & E.C. Bullock (Chairs), *Exploring different theoretical frontiers in mathematics education research: Implications for classroom practice*. Symposium conducted at the annual meeting of the National Council for Teachers of Mathematics, Boston, MA.

5. **Sengupta-Irving, T.** & ⁺Mercado, J. (2015, April). Anticipating change: Secondary teachers' beliefs about engineering, students and science reforms. Paper presented at the annual meeting of American Educational Research Association, Chicago, IL.
4. **Sengupta-Irving, T.** & ⁺Agarwal, P. (2015, April). Productive struggle and the development of relational equity in a mathematics learning community. Roundtable presentation at the annual meeting of the American Educational Research Association, Chicago, IL.
3. **Sengupta-Irving, T.** (2012, June). Girlship, boyship, friendship, workshop: A case study of peer relationships when promoting equity in mathematics education through collaboration. Paper presented at the annual Ethnographic and Qualitative Research Conference, Cedarville, OH.
2. **Sengupta-Irving, T.**, Enyedy, N., ⁺Redman, E., & ⁺Malsbury, C. (2012, April). Learning and affect: A comparison of two approaches to teaching elementary data and statistics. Paper presented at the annual meeting of American Educational Research Association, Vancouver, BC.
1. **Sengupta-Irving, T.**, ⁺Redman, L., Enyedy, N., & ⁺Malsbary, C. (2011, January). What happens when an accomplished elementary teacher tries a new way of teaching? Paper presented at the 15th annual meeting of Association of Mathematics Teacher Educators Conference, Irvine, CA.

Invited Presentations

Keynote, "Learning, Joy, and Collectivism in the Pursuit of Just Futures" (2023, October). For the University of California Women's Initiative. (Berkeley, CA).

Panelist, "Civics Across the Curriculum: Educating for Democracy" (2023, September). For the Commonwealth Club of San Francisco (San Francisco, CA). [View here!](#)

End Keynote, "Radical Disciplinary Love" (2023, April). For the Contra Costa College Annual Pedagogy Conference, Radical Love in Practice. (San Pablo, CA).

Speaker, "After Innocence" (2023, March). For The Democracy Institute of the Ahimsa Center for Nonviolence and Political Action event titled, "Afterlife." (Pomona, CA).

Panelist, "From Math Anxiety to Math Wellbeing" (2023, March). For the *Just Equations* sponsored event, "The Mathematics of Opportunity: Advancing by Degrees." (Berkeley, CA).

Speaker, "Assessment, Truth(s), and Reconciliation" (2019, April). Presidential speaker session conducted at the annual meeting of the American Educational Research Association, Toronto, ON.

Keynote, "Seeking New Language and Approaches to the Valuation of Mathematics Learners

and Learning” (2018, November). For the Curry School of Education Research Series. University of Virginia (Charlottesville, VA).

Panelist, “From Martin Luther King, Jr. to Black Lives Matter: 50 Years of Struggle” Symposium marking the 50th year since the assassination of Dr. King, sponsored by Vanderbilt University’s Divinity School, Law School, and College of Education. (Nashville, TN). 20 Sept. 2018. [\[View here\]](#).

Panelist, Learning Sciences Graduate Student Conference: “Finding Your Voice.” (Bloomington, IN). 20 Oct. 2017.

Presenter, Advanced Doctoral Seminar “Power, Politics and Learning” at the University Colorado, Boulder School of Education. (Boulder, CO). 26 Sept. 2017.

Panelist, 1st Annual Tech Inclusion Nashville Forum: “Driving an Inclusive Future.” (Nashville, TN). 29 Aug. 2017

Keynote, “Dinner and a Draft,” The Writing Studio, Vanderbilt University. (Nashville, TN). 18 Oct. 2016.

Keynote, UC Irvine Incoming Freshman Orientation. (Irvine, CA). 27 Jul. 2015.

Panelist, 10th Annual Gender & Sexuality Studies Roundtable (Irvine, CA). 22 Jan. 2014.

National Forum Invitations

Participant, Spencer Foundation, Student Experience Research Network & Chan Zuckerberg Initiative, “K-12 Student Experience and Measurement.” (Chicago, IL). 17-18 May. 2023.

Participant, American Education Research Association funded conference, “Equity by Design: Expanding the Knowledge Base about Social Design-Based Experiments.” (Berkeley, CA). 28-29 Sept. 2017.

Participant, National Science Foundation funded conference, “Advancing Methods for Studying Social Identities in Mathematics.” (East Lansing, MI). 19-20 May. 2017.

Participant, National Science Foundation funded capacity building project (CAP), “Building Capacity for Political and Cultural Perspectives to Strengthen the Learning Sciences.” (San Diego, CA) 27-28 Jan. and (San Antonio, TX) 26 April. 2018.

Service

National/Community

2022-23 Board Member, Institute for New Global Politics

2021-24	Board Member, Jean Piaget Society
2021-23	Palmer O. Johnson Memorial Award Committee Member, AERA
2020-23	Editorial Board Member, <i>Educational Researcher</i>
2020-23	Editorial Board Member, <i>Cognition and Instruction</i>
2020-21	Berkeley Unified School District Math Task Force Member
2018-19	Faculty Mentor, Mindset Scholars Network (now Student Experience Research Network)
2017-18	Metro Nashville Public Schools STEAM Evaluation Sub-Committee Member
2017-20	Scholars & Advocates for Gender Equity Committee, Appointed Member, AERA
2009-12	International Relations Committee, Appointed Member, AERA

Reviewer: *Journal of the Learning Sciences, Cognition & Instruction, Mind Culture & Activity, Mathematical Thinking and Learning, Journal of Urban Mathematics Education, Science Education, Educational Researcher, Journal for Research in Mathematics Education*

University

2022-23	UCB Graduate Division Block Grant Task Force
2021-23	UC Berkeley American Cultures Committee
2018-19	Dept. Teaching & Learning Faculty Council Member at Large (<i>Vanderbilt</i>)
2015-16	Chair, University-Wide Assessment Committee (<i>UCI</i>)
2014-15	Vice Chair, University-Wide Assessment Committee (<i>UCI</i>)
2014-15	Member, University-Wide Assessment Committee (<i>UCI</i>)

Department

2021-23	Berkeley School of Education Head Graduate Advisor
2021-24	Berkeley School of Education Curriculum Committee (Co-Chair Fall 2021, AY 22-23)
2021-23	Berkeley School of Education Fellowship & Admissions Committee
2021-23	Berkeley School of Education Equity and Diversity Committee
2020-21	Berkeley School of Education Academic & Fiscal Accountability Task Force Co-Chair
2017-18	Member, Search Committee for Tenured Professor of Learning Sciences (<i>Vanderbilt</i>)
2016-19	Member, Learning & Design Curriculum and Planning Committee (<i>Vanderbilt</i>)
2016-19	Member, Learning Sciences & Learning Design Admissions Committee (<i>Vanderbilt</i>)
2016-19	Member, Mathematics & Science Education Admissions Committee (<i>Vanderbilt</i>)
2015-16	Member, School of Education Personnel Committee (<i>UCI</i>)
2013-16	Member, School of Education Undergraduate Steering Committee (<i>UCI</i>)
2014	Member, Eugene Cota Robles Fellowship Selection Committee (<i>UCI</i>)
2013	Member, Fulbright Selection Committee (<i>UCI</i>)
2013-14	Advisor, Undergraduate Education Outreach Club <i>CampMed</i> (<i>UCI</i>)
Oct. 2012	Moderator, Interdisciplinary Conference on Researching Equity (<i>UCI</i>)
Apr. 2012	Moderator, Associated Students & Education Under Fire Panel Discussion (<i>UCI</i>)

Other Employment

2000-03	Mathematics Teacher, Compton Unified School District
1999-2000	Mathematics Teacher, Cenikor Substance Abuse Treatment Center
1999-2000	Electrical Engineer, Agilent Technologies (formerly HP Test & Measurement)
1998-99	Electrical Engineer, Hewlett Packard Company (Test & Measurement Division)