

José Francisco Gutiérrez
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ACADEMIC APPOINTMENTS

Assistant Professor, Department of Education, Culture & Society, College of Education of the University of Utah (2017-present)

Postdoctoral Fellow, Wisconsin Center for Education Research, University of Wisconsin, Madison (2015–2017)

EDUCATION

Ph.D. Cognition and Development, Graduate School of Education, University of California, Berkeley (2015). *Thesis title: "Signs of Power: A Critical Approach to the Study of Mathematics Cognition and Instruction."* Committee members: Dor Abrahamson (chair), Alan H. Schoenfeld, Na'ilah S. Nasir, and Martín Sánchez-Jankowski.

M.A. Cognition and Development, Graduate School of Education, University of California, Berkeley (2011).

B.S. Mathematics, University of California, Los Angeles (2005).

College of the Desert, Palm Desert, California. Fulfilled general education requirements; transferred to UCLA (2002).

RESEARCH INTERESTS

- Conducting interdisciplinary studies of mathematics education policy, practices, and curricula
- Developing culturally sustaining and community-based models of mathematics pedagogy
- Designing K-12 teacher learning activities centered on equity and justice in mathematics and science

PUBLICATIONS

Refereed Journal Articles

Barth-Cohen, L. A., Dobie, T. E., **Gutiérrez, J. F.**, Carlsruh, R., & Greenberg, K. (2023). Preservice elementary teachers' knowledge resources for blending arguments and representations in science. *Journal of Science Teacher Education*, 1–23.
<https://doi.org/10.1080/1046560X.2023.2283662>

Gutiérrez, J.F., Brown, S.A., Alibali, W.M. (2018). Relational equity and mathematics learning: Mutual construction during collaborative problem solving. *Journal of Numerical Cognition*, 4(1), 159–187. <https://doi.org/10.5964/jnc.v4i1.91>

Abrahamson, D., Lee, R. G., Negrete, A. G., & **Gutiérrez, J. F.** (2014). Coordinating visualizations of polysemous action: Values added for grounding proportion. In F. Rivera, H. Steinbring, & A. Arcavi (Eds.), *Visualization as an epistemological learning tool*. *ZDM: The International Journal on Mathematics Education*, 46(1), 79–93.

Gutiérrez, J. F. (2013). Agency as inference: Toward a critical theory of knowledge objectification. *Journal of Research in Mathematics Education (REDIMAT)*, 2(1), 45–76. <http://dx.doi.org/10.4471/redimat.2013.20>

Abrahamson, D., **Gutiérrez, J. F.**, Charoenying, T., Negrete, A. G., & Bumbacher, E. (2012). Fostering hooks and shifts: Tutorial tactics for guided mathematical discovery. *Technology, Knowledge, and Learning*, 17(1–2), 61–86.

Abrahamson, D., **Gutiérrez, J. F.**, & Baddorf, A. K. (2012). Try to see it my way: The discursive function of idiosyncratic mathematical metaphor. *Mathematical Thinking and Learning*, 14(1), 55–80.

Abrahamson, D., Trninic, D., **Gutiérrez, J. F.**, Huth, J., & Lee, R. G. (2011). Hooks and shifts: A dialectical study of mediated discovery. *Technology, Knowledge, and Learning*, 16(1), 55–85.

Refereed Conference Proceedings

Gutiérrez, J.F., Onwubuya, G. (2024, June). An investigation of promising pedagogical practices for supporting (emergent) bi/multilingual learners in mathematics—including practitioner voices. In C. Hoadley & X. C. Wang (Eds.), *Learning as a Cornerstone of Healing, Resilience, and Community: Proceedings of the Fourth Annual Meeting of the International Society of the Learning Sciences (ISLS 2024)*.

Root, V., & **Gutiérrez, J.F.** (2024, June). “Pencils down!” A critical history of timed mathematics exams. In C. Hoadley & X. C. Wang (Eds.), *Learning as a Cornerstone of Healing, Resilience, and Community: Proceedings of the Fourth Annual Meeting of the International Society of the Learning Sciences (ISLS 2024)*.

Sherman, J., Kim, L., Smith, M. J., & **Gutiérrez, J. F.** (2023). Quantitative analysis of mathematical word problems in the Estelle Reel Papers collection. In J. Slotta, L. Charles, A. Breuleux, T. Laferrière, & R. Cassidy (Eds.), *Building Knowledge and Sustaining our Community: Proceedings of the Third Annual Meeting of the International Society of the Learning Sciences (ISLS 2023)*.

Gutiérrez, J. F., Sepulveda, C., Vaughn, K., & Benally, C. (2021). Signs of power and dominance: Mathematics curricula in Indian boarding schools, 1879–1932. In D.

- Kollosche (Ed.), *Exploring new ways to connect: Proceedings of the Eleventh International Mathematics Education and Society Conference (Vol. 1, pp. 172–175)*. Tredition. <https://doi.org/10.5281/zenodo.5391989>
- Carlsruh, R., & **Gutiérrez, J. F.** (2021) White intellectual alibies in use: A critical analysis of preservice teachers' rhetoric. In D. Kollosche (Ed.), *Exploring new ways to connect: Proceedings of the Eleventh International Mathematics Education and Society Conference (Vol. 1, pp. 349–358)*. Tredition. <https://doi.org/10.5281/zenodo.5393732>
- Gutiérrez, J.F.**, Shiver, S., Dobie, T.E., Francom, R., & Barth-Cohen, L.A. (2021). Anything but race: Race-evasion and color-blindness in preservice teachers' responses to a hypothetical scenario. In N. Rummel & U. Hoppe (Eds.), *"Reflecting the Past and Embracing the Future."* *Proceedings of the Annual Meeting of the International Society of the Learning Sciences (ISLS 2021)*. Bochum, Germany.
- Dobie, T.E., Barth-Cohen, L.A., Francom, R., Greenberg, K., & **Gutiérrez, J.F.** (2020). Preservice elementary teachers navigating tensions related to classroom social dynamics through hypothetical teaching scenarios. In A. Sacristán, J.C. Cortés-Zavala, & P. Ruiz-Arias (Eds.), *"Mathematics Education Across Cultures."* *Proceedings of the 42nd Annual Meeting of the North-American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA)*. Mexico (pp. 1553–1558).
- Gutiérrez, J.F.**, Dobie, T., Greenberg, K., Francom, R., & Barth-Cohen, L. (2020). Examining preservice teachers' written responses to a hypothetical classroom scenario involving race. In M. Gresalfi & I.S. Horn (Eds.), *"The Interdisciplinarity of the Learning Sciences."* *Proceedings of the 14th International Conference of the Learning Sciences (ICLS 2020)* (Vol. 4, pp. 2325–2328). Nashville, TN: Vanderbilt University / ISLS.
- Barth-Cohen, L., Dobie, T.E., Greenberg, K., Francom, F., & **Gutiérrez, J.F.** (2020). Examining links between arguments and representations in pre-service teachers' pedagogical content knowledge. In M. Gresalfi & I.S. Horn (Eds.), *"The Interdisciplinarity of the Learning Sciences."* *Proceedings of the 14th International Conference of the Learning Sciences (ICLS 2020)* (Vol. 4, pp. 2253–2256). Nashville, TN: Vanderbilt University / ISLS.
- Gutiérrez, J.F.**, Benally, C., Sepulveda, C., Vaughn, K.N. (2019). Mathematical reservations: The colonial psychology of mathematics education and its role in federal assimilation policies. In S. Otten, A. Candela, Z. de Araujo, C. Haines, & C. Munter (Eds.), *"...against a new horizon."* *Proceedings of the 41st annual meeting of the North-American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA)*. St. Louis, MO: University of Missouri.
- Gutiérrez, J.F.**, Barth-Cohen, L.A., Francom, R., Greenberg, K., MacArthur, K., & Dobie, T. (2019). An emerging methodology for the study of preservice teachers' learning about equity in STEM education. In S. Otten, A. Candela, Z. de Araujo, C. Haines, & C. Munter (Eds.), *"...against a new horizon."* *Proceedings of the 41st annual meeting of the*

North-American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA). St. Louis, MO: University of Missouri.

- Gutiérrez, J.F.,** Scott, M. (2019). Problematizing “thinking” in math education. In J. Subramanian & P. Basu (Eds.), *Proceedings of the 10th International Mathematics Education and Society Conference (MES10)*. Hyderabad, India: Centre for Knowledge Culture and Innovation Studies, University of Hyderabad.
- Gutiérrez, J.F.** (2018). Math: It’s not what you “think.” In J. Kay & R. Luckin (Eds.), *“Rethinking learning in the digital age: Making the Learning Sciences count.” Proceedings of the 13th International Conference of the Learning Sciences (ICLS 2018)* (Vol. 2, pp. 1021–1024). London, UK: University College London / ISLS.
- Brown, S.A., **Gutiérrez, J.F.**, & Alibali, M.W. (2016). “Relational” equity: Elementary students co-construct a social–mathematical power dynamic during collaborative engagement on equivalence tasks. In M. Wood, E. Turner, & M. Civil (Eds.), *“Sin fronteras: Questioning borders with(in) mathematics education.” Proceedings of the 38th annual meeting of the North-American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA)*. Tucson, AZ: University of Arizona.
- Gutiérrez, J. F.** (2016). The “obj–subj” dialectic and the co-construction of hierarchical positional identities during a collaborative generalization task. In C.-K. Looi, J. Polman, U. Cress, & P. Reimann (Eds.), *“Transforming learning, empowering learners.” Proceedings of the International Conference of the Learning Sciences (ICLS 2016)* (Vol. 1, pp. 687–694). Singapore: National Institute of Education / ISLS.
- Gutiérrez, J. F.** (2015). Students vacillate between the Factual-Contextual-Symbolic levels of generality. In T. G. Bartell, K. N. Bieda, R. T. Putnam, K. Bradfield, & H. Dominguez (Eds.), *Proceedings of the Thirty-Seven Annual Meeting of the North-American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA)* (Ch. 6: Mathematical Processes, pg. 419). East Lansing, MI: Michigan State University.
- Gutiérrez, J. F.** (2015). The objectification–subjectification dialectic in mathematical discourse. In T. G. Bartell, K. N. Bieda, R. T. Putnam, K. Bradfield, & H. Dominguez (Eds.), *Proceedings of the Thirty-Seven Annual Meeting of the North-American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA)* (Ch. 10: Teaching and Classroom Practice, pg. 1174). East Lansing, MI: Michigan State University.
- Gutiérrez, J. F.** (2015). Cognitive normalization: A Foucauldian view of mathematics pedagogy. In T. G. Bartell, K. N. Bieda, R. T. Putnam, K. Bradfield, & H. Dominguez (Eds.), *Proceedings of the Thirty-Seven Annual Meeting of the North-American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA)* (Ch. 12: Theory and Research Methods, pg. 1322). East Lansing, MI: Michigan State University.

- Gutiérrez, J. F.** (2013). Agency-as-inference: Two sides of the same epistemic coin. In A. Castro Superfine, M. Martinez, G. Larnell, T. Stoelinga & D. Martin (Eds.), *Proceedings of the Thirty-Five Annual Meeting of the North-American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA 35)* (Ch. 3: Early Algebra, Algebra & Number Concepts, pp. 136–139). Chicago: University of Illinois.
- Abrahamson, D., Trninic, D., & **Gutiérrez, J. F.** (2012). In D. Abrahamson (Chair & Organizer) and M. Eisenberg (Discussant). You made it! From action to object in guided embodied interaction design. In P. Freebody, T. de Jong, E. Kyza & P. Reimann (Eds.), *Proceedings of the International Conference of the Learning Sciences: Future of Learning (ICLS 2012)* (Vol. 2: Symposia, pp. 99109). Sydney, Australia: University of Sydney / ISLS.
- Abrahamson, D., Trninic, D., & **Gutiérrez, J. F.** (2011). *Dialectical investigations of mathematical discovery: The emergence of disciplinary forms in an embodied-interaction design for proportions*. Paper presented at the annual meeting of the Jean Piaget Society, Berkeley, June 2–4.
- Trninic, D., **Gutiérrez, J. F.**, & Abrahamson, D. (2011). Virtual mathematical inquiry: Problem solving at the gestural–symbolic interface of remote-control embodied-interaction design. In G. Stahl, H. Spada, N. Miyake, & N. Law (Eds.), *Connecting Computer-Supported Collaborative Learning to Policy and Practice: CSCL 2011 Conference Proceedings* (Vol. 1—Long Papers, pp. 272–279). Hong Kong: ISLS.
- Trninic, D., **Gutiérrez, J. F.**, & Abrahamson, D. (2011). *Instruction and embodied design*. In A. Antle, P. Marshall, & E. van den Hoven (Chairs), workshop on Embodied Interaction. In G. Fitzpatrick & C. Gutwin (Eds.), *Proceedings of the ACM CHI Conference on Human Factors in Computing Systems (CHI 2011)*. ACM: CHI.
- Gutiérrez, J. F.** (2010). Illuminating inequitable learning opportunities underlying effective collaborative problem solving in algebra. In P. Brosnan, D. Erchick, & L. Flevares, (Eds.), *Proceedings of the Thirty-Second Annual Meeting of the North-American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA 32)* (Vol. VI, Ch. 2: Algebraic Thinking and Reasoning, p. 282). Columbus, OH: PME-NA.
- Gutiérrez, J.F.** (2010). “I don’t know—I’m just genius!”: Distinguishing between the process and the product of student algebraic reasoning. In K. Gomez, L. Lyons, & J. Radinsky (Eds.), *Learning in the Disciplines: Proceedings of the 9th International Conference of the Learning Sciences (ICLS 2010)* (Vol. 1 [Full Papers], pp. 905–912). Chicago, IL: University of Illinois at Chicago / ISLS.
- Abrahamson, D., Bryant, M. J., **Gutiérrez, J. F.**, Mookerjee, A., Souchkova, D., & Thacker, I. (2009). Figuring it out: Mathematical learning as guided semiotic disambiguation of useful yet initially entangled intuitions. In S. L. Swars, D. W. Stinson, & S. Lemons-Smith (Eds.), *Proceedings of the Thirty-First Annual Meeting of the North-American*

Chapter of the International Group for the Psychology of Mathematics Education (Vol. 5, pp. 662–670). Atlanta, GA: Georgia State University.

Book Reviews

Gutiérrez, J.F. (2023). Book Review of *Assimilation, Resilience, and Survival: A History of the Stewart Indian School, 1890–2020* by Samantha Williams. *California History*, (100)4, 124–126. <https://doi.org/10.1525/ch.2023.100.4.124>

Policy Reports & Briefs

Nasir, N. S., Shah, N., **Gutiérrez, J. F.**, Seashore, K., Louie, N., Baldinger, E. (2011, May). Mathematics learning and diverse learners. *Commissioned paper presented to the National Research Council's Board on Science Education, "Highly Successful Schools or Programs for K-12 STEM Education: A Workshop."* Washington D.C.: National Science Foundation.

Non-Refereed Journal Articles

Kim, L., Smith, M., Sepulveda, C., Benally, C., Vaughn, K.N., **Gutiérrez, J.F.** (2022). Numbers and nuclear families: Gender and work in Indian boarding school mathematics curricula, 1879–1932. *RANGE: Undergraduate Research Journal*, 23(2), 33–58.

Smith, M., Kim, L., Benally, C., Vaughn, K.N., Sepulveda, C., **Gutiérrez, J.F.** (2022). Allotments and Arithmetic: Land Dispossession in Indian Boarding School Mathematics Curricula, 1879–1932. *RANGE: Undergraduate Research Journal*, 23(2), 59–81.

Manuscripts Under Review

n/a

Manuscripts in Progress

Gutiérrez, J.F. (in revision). Reckoning with mathematics: Challenging racist myths, promoting community/family engagement, and finding healing in math education. *Mathematics Teacher Educator* (submitted July 6, 2023).

Gutiérrez, J.F., Sepulveda, C., Benally, C., Vaughn, K.N., Shiver, S., & Zarnetske, M. (in revision). Signs of power and dominance: Mathematics curricula, U.S. Assimilation Policies, and Indian boarding schools, 1879–1932. *Journal for Research in Mathematics Education* (submitted March 17, 2023).

Sepulveda, C., **Gutiérrez, J.F.**, Vaughn, K.N. (in preparation). SOHCAHTOA: Playing Indian in trigonometry class.

Smith, M., Benally, C., **Gutiérrez, J.F.** (in preparation). Allotments and Arithmetic: Land Dispossession in Indian Boarding School Mathematics Curricula, 1879–1932.

Sherman, J., & **Gutiérrez, J.F.** (in preparation). Classifying Arithmetic Problems Used in a United States Government Curriculum Designed to Assimilate Native American Children.

Gutiérrez, J.F., Shiver, S., Dobie, T., Barth-Cohen, L.A., & Carlsruh, R. (in preparation). A million reasons: Race evasion in preservice elementary teachers' responses to a teaching scenario.

Gutiérrez, J.F., Barth-Cohen, L.A., Carlsruh, R., & Greenberg, K., Dobie, T., Shiver, S. (in preparation). Data and methods for examining preservice elementary teachers' responses to a scenario involving potential racism in the classroom.

PRESENTATIONS

Refereed Conference Papers

S. Shiver & **Gutiérrez, J.F.** (2024, April). *Expanding the Boundaries of White Racial Imagination: Supporting Antiracist Praxis Among Postsecondary Education Staff/Administrators*. Paper presented at the annual meeting of the American Educational Research Association. Philadelphia, April 11–14.

Gutiérrez, J.F. & Quinonez (2024, April). *Math Community Nights*. Paper presented at the annual meeting of the American Educational Research Association. Philadelphia, April 11–14.

S. Shiver & **Gutiérrez, J.F.** (2023, November). *Expanding the Boundaries of White Racial Imagination: Supporting the Antiracist Praxis Among Postsecondary Education Staff/Administrators*. Paper to be presented at the annual meeting of the American Educational Studies Association. Louisville, November 8–11.

Kim, L., Smith, M., Sepulveda, C., Benally, C., Vaughn, K.N., **Gutiérrez, J.F.** (2023, April). *Dividing Gender: Domesticity and Work in Indian Boarding School Mathematics Curricula, 1879–1932*. Paper to be presented at the annual meeting of the American Educational Research Association. Chicago, April 13–16.

Smith, M., Kim, L., Benally, C., Vaughn, K.N., Sepulveda, C., **Gutiérrez, J.F.** (2023, April). *Allotments and Arithmetic: Land Dispossession in Indian Boarding School Mathematics Curricula, 1879–1932*. Paper to be presented at the annual meeting of the American Educational Research Association. Chicago, April 13–16.

Gutiérrez, J.F., Shiver, S., Zarnetske, M., Sepulveda, C., Benally, C., & Vaughn, K.N. (2022, April). *Assimilating mathematical knowledge: Tracing racist ideology in Indian boarding school mathematics curricula, 1879–1932*. Paper presented at the annual meeting of the American Educational Research Association. San Diego, April 21–26.

Gutiérrez, J.F., Barth-Cohen, L.A., Francom, R., Greenberg, K., MacArthur, K., Dobie, T. (2020, April). *Examining racial awareness and color-blind discourse in preservice teachers' responses to a hypothetical classroom scenario*. Paper presented at the annual meeting of the American Educational Research Association. San Francisco, April 17–21.

Greenberg, K., Francom, R., MacArthur, K., Barth-Cohen, L.B., **Gutiérrez, J.F.**, Dobie, T. (2020, April). *Insights from a mixed-methods approach for measuring elementary preservice teachers' pedagogical content knowledge for mathematics*. Paper presented at the annual meeting of the American Educational Research Association. San Francisco, April 17–21.

Gutiérrez, J.F., Benally, C., Sepulveda, C., Vaughn, K.N. (2020, April). *Mathematical reservations: The colonial psychology of mathematics education and its role in federal assimilation policies*. Poster presented at the annual meeting of the American Educational Research Association. San Francisco, April 17–21.

Barth-Cohen, L.A., Francom, R., Greenberg, K., MacArthur, K. **Gutiérrez, J.F.** (2019, April). *Identifying preservice elementary teachers productive knowledge resources around representations and arguments in math and science*. Paper presented at the annual meeting of the American Educational Research Association. Toronto, Canada, April 5-9, 2019.

Francom, R., Barth-Cohen, L.A., **Gutiérrez, J.F.** (2019, April). *Undergraduates transitioning from STEM degrees to elementary education degrees: Driving values and motivating factors*. Paper presented at the annual meeting of the American Educational Research Association. Toronto, Canada, April 5–9, 2019.

Gutiérrez, J.F., Brown, S.A., Estep, T., Alibali, M.W. (2017, April). *“That’s an equal sign! What the heck are you doing?” A micro-analysis of relational equity during mathematical collaboration*. Paper presented at the annual meeting of the American Educational Research Association. San Antonio, Texas, April 27 – May 1, 2017.

Gutiérrez, J. F. (2016, July). Exploring tensions in the “obj–subj” dialectic (Paper presented at N. Presmeg & L. Radford [Co-Chairs], Topic Study Group 54: Semiotics in mathematics education). *13th International Congress on Mathematical Education (ICME)*. Hamburg: University of Hamburg.

Gutiérrez, J. F. (2012, July). *Signs of power: A critical interdisciplinary analysis of algebra education*. Poster presented at the 12th International Congress on Mathematics Education (ICME), Seoul, South Korea, July 8–15.

Abrahamson, D., Negrete, A. G., & **Gutiérrez, J. F.** (2012, April). *Adding up to multiplicative concepts: The role of embodied reasoning*. Paper presented at the annual meeting of the American Educational Research Association (SIG Research in Mathematics Education), Vancouver, April 13–17.

Abrahamson, D., **Gutiérrez, J. F.**, Charoenying, T., Negrete, A. G., & Bumbacher, E. (2012, April). *Fostering mathematical discovery: One tutor's strategies for ushering the construction of proportional schemas via mediated embodied interaction*. In J. Radinsky (Chair) & J. Lemke (Discussant), Emergent methods for studying spatial and embodied dimensions of learning. Symposium presented at the annual meeting of the American Educational Research Association (SIG Learning Sciences), Vancouver, April 13–17

Gutiérrez, J. F. (2012, April). *Symbolizing power*. Poster presented at the annual meeting of the American Educational Research Association, Vancouver, April 13–17.

Gutiérrez, J. F., Trninic, D., Lee, R. G., & Abrahamson, D. (2011, April). *Hooks and shifts in instrumented mathematics learning*. Paper presented at the annual meeting of the American Educational Research Association (SIG Learning Sciences). New Orleans, LA, April 8 – 12, 2011.

Trninic, D., **Gutiérrez, J. F.**, Lee, R. G., & Abrahamson, D. (2011, April). *Generative immersion and immersive generativity in instructional design*. Paper presented at the annual meeting of the American Educational Research Association (SIG Research in Mathematics Education). New Orleans, LA, April 8 – 12, 2011.

Abrahamson, D., **Gutiérrez, J. F.**, Lee, R. G., Reinholz, D., & Trninic, D. (2011, April). *From tacit sensorimotor coupling to articulated mathematical reasoning in an embodied design for proportional reasoning*. In R. Goldman (Chair), H. Kwah & D. Abrahamson (Organizers), & R. P. Hall (Discussant), Diverse perspectives on embodied learning: What's so hard to grasp? Symposium presented at the annual meeting of the American Educational Research Association (SIG Advanced Technologies for Learning). New Orleans, LA, April 8–12, 2011.

Gutiérrez, J. F., Charoenying, T. (2010). *Educational design as the production of boundary objects*. Paper presented at the annual meeting of the American Education Research Association, April 30 – May 4, Denver, CO.

Non-Refereed Conference Presentations

Gutiérrez, J. F. (2017, February). *Math: It's not what you think!* Poster presented at the Third Annual UW-Madison Education Research Symposium.

Gutiérrez, J. F. (2016, December). *A micro-analysis of interactional power dynamics and mathematics learning in a laboratory setting*. Poster presented at the Institute of Education Sciences (IES) Principal Investigators Meeting, Washington D.C.

Brown, S.A., **Gutiérrez, J. F.**, Alibali, M.W. (2016, April). *The role of power dynamics during collaboration and their influence on accurate encoding of the equal sign*. Poster presented at the Wisconsin Alumni Research Foundation Symposium, UW-Madison.

Brown, S.A., **Gutiérrez, J. F.**, Alibali, M.W. (2016, February). *When does accurate encoding of the equal sign help? The role of power dynamics in collaboration*. Poster presented at the Second Annual UW-Madison Education Research Symposium.

Gutiérrez, K.D., DiGiacomo, D., **Gutiérrez, J.F.** (2015, June). *Toward a theory of ingenuity in the practices of Latino families*. Paper presented at the Annual Digital Media and Learning Conference (DML). Los Angeles, CA: MacArthur Foundation.

Gutiérrez, J. F. (2010). *A process product analysis reveals inequitable learning opportunities underlying effective collaborative problem solving in algebra*. Poster presented at the Fifth Annual IES Research Conference, Washington D.C.

Gutiérrez, J. F. (2009). *A cultural–semiotics approach to promoting student algebraic competence*. Poster presented at the first annual California Cognitive Science Conference, UC Berkeley.

Presentations, Panels, and Workshops

Gutiérrez, J.F. (2024, April). *Reimagining Math Education: Engaging Families and Communities*. Paper presented at the National Council of Teachers of Mathematics (NCTM) Virtual Conference, April 10–13.

Gutiérrez, J.F. (2023). *Math Education in Indian Boarding Schools, 1879-1932*. Invited presentation in the Center for Science and Mathematics Education (CSME Exchange Series). University of Utah, October 23, 2023. <https://www.csme.utah.edu/csme-exchange/>

Gutiérrez, J.F. (2021, November). *When the antidote is the poison: Current research on social justice and mathematics education*. Invited talk for the Undergraduate Research Education Series, University of Utah, November 5, 2021.

Gutiérrez, J. F. (2020, October). *Three examples of community-based initiatives in secondary mathematics education*. Invited presentation at the 22nd Annual Weber State University Diversity Conference, October, 2020, <https://www.weber.edu/diversity/diversityconference.html>.

Gutiérrez, J. F. (2020, January). *Examining racial awareness and color-blind discourse in preservice teachers' responses to a hypothetical classroom scenario*. Invited presentation in the Department of Education, Culture and Society Colloquium. University of Utah, January 31, 2020.

Gutiérrez, J.F., Francom, R. Greenberg, K. (2019, October). *Supporting preservice elementary teachers' learning of equity and diversity issues in math education*. Workshop presented at the National Council of Teachers of Mathematics (NCTM) Regional Conference and Exposition, Salt Lake City, Utah, October 17, 2019.

Gutiérrez, J. F. (2019, March). *Can you “measure” teacher candidates’ knowledge of equity and diversity issues in math education?* Invited presentation in the Utah Association of Mathematics Teacher Educators Annual Conference. University of Utah, March 30, 2019.

Barth-Cohen, L.A., **Gutiérrez, J.F.** (2019, January). *Building coherence in math and science elementary teacher preparation.* Invited presentation in the College of Education, Office of Faculty Research and Support, Research Seminar. University of Utah, January 24, 2019.

Gutiérrez, J. F. (2018, November). *Can you “measure” teacher candidates’ knowledge of equity and diversity issues in math and science education?* Invited presentation in the Department of Education, Culture and Society Colloquium. University of Utah, November 16, 2018.

Gutiérrez, J. F. (2018, April). *Gender and intersectionality in math and math education research.* Invited presentation for the Association for Women in Mathematics (AWM) at the University of Utah, April 30, 2018.

Gutiérrez, J. F. (2018, March). *Math: It’s not what you “think.”* Invited presentation in the Department of Mathematics Colloquium. University of Utah, March 15, 2018.

Gutiérrez, J.F. (2017, April). *Equity in mathematics education: Tensions and possibilities.* Invited presentation for the panel “Researching Structural Inequity across Learning Contexts.” Emerging Scholars Program at the University of California, Davis, April 11, 2017.

Gutiérrez, J. F. (2016, August). *Interactional power dynamics and mathematics learning.* Invited talk at the University of Wisconsin-Madison’s Inaugural Postdoctoral Research Symposium.

Gutiérrez, J. F. (2013, December). *Combining participant observation with design-based research to investigate agency and mathematical inference and their impact on student identity.* Invited presentation at the seminar of the Research on Cognition and Mathematics Education (RCME) group, University of California, Berkeley.

GRANTS

Pending

2024-2026 Spencer Foundation, Large Research Grants on Education Program
Strength in Numbers: Students’ Mathematical Experiences in Indian Boarding Schools
José F. Gutiérrez (PI), and Charles Sepulveda (Co-PI)
 \$375,000

Funded

- 2022–2023 College of Education, University of Utah, *LEARNT* Seed Grant Program
Colonized Through Math: American Indian Boarding Schools and Math Education
José F. Gutiérrez (PI), Charles Sepulveda (Co-PI), Cynthia Benally (Co-PI), and Kēhaulani Vaughn (Co-PI)
 \$5,000
- 2022–2024 Spencer Foundation, Small Research Grants Program
Signs of Power and Dominance: The Role of Mathematics Curricula in U.S. Assimilationist Policies and Practices in Indian Boarding Schools, 1879–1932
José F. Gutiérrez (PI), Charles Sepulveda (Co-PI), Kēhaulani Vaughn (Co-PI), and Cynthia Benally (Co-PI)
 \$50,000
- 2022, summer Office of Undergraduate Research, University of Utah, SPUR Mentor Award
Signs of Power and Dominance: The Role of Mathematics Curricula in U.S. Assimilationist Policies and Practices in Indian Boarding Schools, 1879–1932
José F. Gutiérrez (PI), Cynthia Benally (Co-PI), Kēhaulani Vaughn (Co-PI), and Charles Sepulveda (Co-PI)
 \$7,935
- 2020–2022 Vice President for Research, University of Utah, Seed Grants Program
Mathematical Reservations: The Colonial Psychology of Math Education and its Role in Federal Assimilation Policies
José F. Gutiérrez (PI), Cynthia Benally (Co-PI), Kēhaulani Vaughn (Co-PI), and Charles Sepulveda (Co-PI)
 \$12,000
- 2017–2021 National Science Foundation, Division of Undergraduate Education
Building Coherence in STEM Learning Opportunities for Preservice Elementary Teachers Across Disciplinary Boundaries (Award #1712493)
 Lauren Barth-Cohen (PI), Jordan Gerton (CO-PI), and **José F. Gutiérrez (Co-PI)**
 \$299,379

Not Funded

- 2023–2025 Sloan Foundation, History of Science Grants Program
Strength in Numbers: Students' Math Experiences in Indian Boarding Schools, 1879–1932
 José F. Gutiérrez (PI), Charles Sepulveda (Co-PI), and Kēhaulani Vaughn (Co-PI)
 \$250,000
- 2021–2022 Spencer Foundation, Small Research Grants Program
Signs of Power and Dominance: The Role of Mathematics Curricula in U.S. Assimilationist Policies and Practices in Indian Boarding Schools, 1879–1932

José F. Gutiérrez (PI), Charles Sepulveda (Co-PI), Kēhaulani Vaughn (Co-PI), and Cynthia Benally (Co-PI)
\$50,000

2021–2022 Spencer Foundation, Small Research Grants Program
Mathematical Reservations: The Colonial Psychology of Mathematics Education and its Role in Federal Assimilation Policies
José F. Gutiérrez (PI), Charles Sepulveda (Co-PI), Kēhaulani Vaughn (Co-PI), and Cynthia Benally (Co-PI)
\$45,974

AWARDS & HONORS

2023 Summer Faculty Fellow Residency, Taft-Nicholson Center, University of Utah: \$2,000
2016 Postdoctoral Fellowship in the Mathematical Thinking, Learning, and Instruction Program, Wisconsin Center for Education Research, 2nd Year Award: \$55,000
2015 Postdoctoral Fellowship in the Mathematical Thinking, Learning, and Instruction Program, Wisconsin Center for Education Research, 1st Year Award: \$55,000
2013 Dissertation-Year Fellowship, UC Berkeley: \$20,500
2012 Mentored Research Award, UC Berkeley, Graduate School of Education: \$10,000
2011 Predoctoral Fellowship in the Research in Cognition and Mathematics Education (RCME) Program, UC Berkeley: \$22,000
2011 Dean's Normative Time Fellowship, UC Berkeley: \$8,000
2010 Predoctoral Fellowship in the Research in Cognition and Mathematics Education (RCME) Program, UC Berkeley: \$30,000
2009 Honorable Mention, National Science Foundation Graduate Research Fellowship
2009 Predoctoral Fellowship in the Research in Cognition and Mathematics Education (RCME) Program, UC Berkeley: \$29,000
2008 Diversity Fellowship, UC Berkeley, 2nd Year Award: \$20,000
2007 Diversity Fellowship, UC Berkeley, 1st Year Award: \$22,000

TEACHING

Teaching & Professional Development Presentations, Panels, and Workshops

Gutiérrez, J. F. (2024, February). *Critical and Transformative Methodologies in Mathematics Education Research*. Invited presentation in the graduate seminar “Learning Sciences” (Professor Chenglu Li). University of Utah, February 16, 2024.

Gutiérrez, J. F. (2023, January). *Historical Orientations to Curriculum: Math Education for Multilingual Learners*. Online module for the Advancing Pathways Toward Equity and Excellence with Educators of Multilingual Learners (APEX) Project, Spring Intensive Training Series.

Gutiérrez, J. F. (2023, February). *Math Education Partnership Models to Connect with Multilingual Learners and Their Families*. Online module for the Advancing Pathways

Toward Equity and Excellence with Educators of Multilingual Learners (APEX) Project, Spring Intensive Training Series.

Gutiérrez, J. F. (2022, January). *Three examples of community-based initiatives in secondary mathematics education*. Invited talk for Salt Lake Afterschool Regional Network, January 6, 2022.

Gutiérrez, J. F. (2021, November). *Assimilating mathematical knowledge: Tracing racist assimilationist ideology in Indian boarding school mathematics curricula, 1879–1932*. Invited presentation in the graduate seminar “Learning Sciences” (Professor Lynne Zummo). University of Utah, November 12, 2021.

Gutiérrez, J. F. (2021, September). *Math: It’s not what you “think.”* Invited lecture in the course “Linking research and practice in (mathematics) education” (Professor Nicole Fonger). Syracuse University, September 29, 2021.

Gutiérrez, J. F. (2021, August). *Resisting the dominant mathematics education regime: A personal narrative*. Invited talk for Promise South Salt Lake, August 19, 2021.

Gutiérrez, J. F. (2018, April). *Problematizing the discourse of math-as-thinking*. Invited presentation in the undergraduate seminar “Science of Learning” (SCI 5050, Professor Jessica Dwyer). University of Utah, April 3, 2018.

Gutiérrez, J. F. (2017, October). *Relational equity and math learning: What happens during collaboration across different settings?* Invited presentation in the graduate seminar “Learning Sciences” (Professor Lauren Barth-Cohen). University of Utah, October 27, 2017.

Gutiérrez, J.F. (2017, February). *Equity and math learning: What happens during collaborative problem solving?* Invited presentation in the “Pondering Excellence in Teaching” colloquium series. Center to Support Excellence in Teaching program at Stanford University, February 6, 2017.

Gutiérrez, J. F. (2016, November). *A gathering of mathematical problem solving*. Invited lecture in the course “Teaching of Secondary School Mathematics” (Professor Maxine McKinney de Royston). University of Wisconsin, Madison, November 2, 2016.

University of Utah Graduate Courses Taught

- ECS 6600: Introduction to Critical and Cultural Studies in Education
- ECS 6950: Master of Education Capstone Class
- ECS 6961: Master of Education Comprehensive Exam
- ECS 6627/7627: Race, Culture, & Representation and Education (redesigned course)
- ECS 6858/7858: STEM Education & Society (**new** course)
- ECS 6950/7950: Critical Mathematics Pedagogy (**new** course)

- ECS 6950/7950: Introduction to Qualitative Research Interviewing in STEM Education (**new** course)
- ECS 7870: Conceptual Issues in Qualitative Research (redesigned course)
- ECS 7871: Introduction to Qualitative Research Methods (redesigned course)
- ECS7960: Directed Reading and Research for Doctoral Students
- ECS7961: Directed Reading for Doctoral Preliminary Exam

Undergraduate Courses Taught at Other Universities & Programs

Summer 2013 Introduction to Probability and Statistics, Graduate Student Instructor, Statistics Department, UC Berkeley
 Spring 2013 Introduction to Probability and Statistics, Graduate Student Instructor, Statistics Department, UC Berkeley
 Fall 2012 Introduction to Probability and Statistics for Business, Graduate Student Instructor, Statistics Department, UC Berkeley
 Spring 2012 Introduction to Probability and Statistics for Business, Graduate Student Instructor, Statistics Department, UC Berkeley

SERVICE

University of Utah

- *Member*, Graduate Council (2022-present)
- *Member*, Senate Advisory Committee on Student Course Feedback (2022-2023)
- *Faculty Associate*, Center for Science and Mathematics Education (Fall 2018-present)
- *Member*, Center for Science and Mathematics Education, Colloquium Committee, (2017-present)

College of Education

- *Member*, Undergraduate Research Committee (2023)
- *Member*, Planning Committee, Imagine U Day (2023)
- *Member*, Search Committee for Associate Dean for Faculty and Students (2023)
- *Member*, Search Committee for Associate Dean for Research (2023)
- *Member*, Scholarship Committee (2023)
- *Member*, UITE Secondary Licensure Program Admissions Committee (2022)
- *Member*, Search Committee for STEM Education Associate Professor (2022)
- *Member*, Advisory Board, UITE Honors Program (2018–2019)
- *Member*, Awards Committee (2018)
- *Member*, Search Committee for Pacific Islander Studies Assistant Professor (2018)
- *Member*, STEM Education Research Working Group (2017-present)

Department of Education, Culture & Society

- *Co-Chair*, Search Committee for Critical Educational Research Methodologies Assistant/Associate Professor (2023)

- *Member*, M.Ed. Admissions Committee (2019, 2022-present)
- *Member*, Ph.D. Admissions Committee (2019, 2022-present)
- *Member*, ECS Graduate Program Review Committee (2021–2022)
- *Member*, ECS Curriculum Committee (2017–2022)
- *Member*, ECS Capstone Committee, (2018–2021)
- *Member*, M+ Steering Committee (2021, 2022)
- *Member*, M+ Comp Exam Committee (2019–2020, 2022)
- *Member*, Recruitment Committee (2018–2019)
- *Member*, Search Committee for Multilingual Multicultural Education Faculty, Department of Education, Culture & Society (2019–2020)

Public Service and Community Engagement

- *Consultant/Resource Person*, math department, City Academy High School, Salt Lake City, UT (2020-present)
- *Co-Organizer*, City Academy Annual Math Symposium (2022-2024)
- *Consultant/Resource Person*, Promise South Salt Lake, (2021–2022)
- *Consultant/Resource Person*, math department, Kearns Junior High School, Salt Lake City, UT (2018–2020)
- *Volunteer Math Tutor*, West High School, Salt Lake City, UT (Fall 2018)
- *Volunteer Math Tutor*, “Casa Quetzalcoatl,” a community-based program for Salt Lake City youth empowerment, advocacy, and academic achievement (Spring 2018)
- *Volunteer Youth Mentor & Rock Climbing Coach*, Goodman Center, Madison, WI (2016–2017)
- *Volunteer Math Tutor & Rock Climbing Coach*, Learning for Life, Oakland, California (2010–2012)

Media

Twig Media (2019, February 14). University of Utah, College of Education: Scholars in Teacher Education. Retrieved at <https://www.youtube.com/watch?v=NXo4JKOmwho>.

PROFESSIONAL AFFILIATIONS

- *Member*, American Educational Research Association (AERA)
- *Member*, International Society of the Learning Sciences (ISLS)
- *Member*, International Group for the Psychology of Mathematics Education–North American Chapter (PME-NA)
- *Member*, National Council of Teachers of Mathematics (NCTM)

ADVISORY

- *Advisory Board Member*: “Debugging Failure: Fostering Youth Academic Resilience in Computer Science.” PIs Noel Enyedy & Francis Steen (University of California, Los Angeles), Dor Abrahamson (University of California, Berkeley), and Melissa Chen (9

Dots Community Learning Center). National Science Foundation—Research in Service to Practice, 2016–2019.

EDITORIAL WORK

- National Science Foundation EHR panel (2017, 2021, 2022), reviewer
- *Equality, Diversity, and Inclusion: An International Journal* (2023), reviewer
- *Journal of the Learning Sciences* (2014, 2020), reviewer
- *Cognition & Instruction* (2016), reviewer
- *The Mathematics Enthusiast* (2017), reviewer
- *REDIMAT: Journal of Research on Math Education* (2013), reviewer
- Conference Proposal Reviewer:
 - *American Educational Research Association (AERA)*
 - *International Society of the Learning Sciences (ICLS/ISLS)*
 - *North-American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA)*
 - *Mathematics Education and Society (MES)*

EMPLOYMENT/PRIOR WORK EXPERIENCE

Summer 2019 UW-Madison’s College Access Program, Mathematics Instructor
 Summer 2018 UW-Madison’s College Access Program, Mathematics Instructor
 Summer 2017 UW-Madison’s College Access Program, Mathematics Instructor
 Summer 2016 UW-Madison’s College Access Program, Mathematics Instructor
 Spring 2015 San Francisco Coalition of Essential Small Schools, Program Coordinator for the
 afterschool program “Young People’s Project,” S.F. California
 2005 – 2007 Chong Partners Architects, Los Angeles, California
 2000 – 2002 Urrutia Architects, Palm Springs, California

PERSONAL INTERESTS

- Rock climbing
- Softball
- Chess
- Youth mentoring
- Creative writing