

**Tia C. Madkins, Ph.D.**

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**EDUCATION**

University of California, Berkeley, Ph.D. in Education Conferred December 2016

University of Southern California, M.S. in Science Education Received December 2002

Boston University, B.A. in Biology Received May 2000

**PROFESSIONAL APPOINTMENTS**

- Fall 2020 - **Faculty Research Affiliate**, Center for the Study of Race and Democracy, The University of Texas at Austin, Austin, TX
- Fall 2019 – Spring 2024 **Honorary Assistant Professor**, Department of Curriculum and Teaching, Teachers College, Columbia University, New York, NY
- Spring 2019 – **Faculty Research Affiliate**, Population Research Center, The University of Texas at Austin, Austin, TX
- Spring 2018 – **Assistant Professor**, STEM Education and Department of Curriculum and Instruction, College of Education, The University of Texas at Austin, Austin, TX
- Fall 2017 **Inaugural Visiting Postdoctoral Scholar**, Na'ilah S. Nasir, Spencer Foundation, Chicago, IL
- Fall 2016 – Summer 2017 **Postdoctoral Scholar**, Matthew Kloser, Notre Dame Center for STEM Education, University of Notre Dame, Notre Dame, IN

**GRANTS**

- October 2020 National Science Foundation EHR Grant (\$500K Award Submitted), Designing for Equitable and Inclusive Learning Environments in the Physical Sciences (PI: M. Richard, **Co-PIs: T. C. Madkins & B. Benson**)
- August 2020 Genentech Cultivating K-12 STEM Excitement and Career Exploration (\$500K LOI Declined), *Transforming K-6 STEM Classrooms for Children from BIPOC Communities: Cultivating Teachers' Use of Culturally Relevant Teaching Practices* (**PI: T. C. Madkins**, Co-PI: J. Childs)
- February 2020 Spencer Foundation Lyle Research Award (LOI Declined) Early Career Teachers' Experiences, Support, and Concerns: A Cross-Case Study of 1<sup>st</sup> and 2<sup>nd</sup>-Year Teacher Support in High Needs Schools (PI: Beth Maloch, **Co-PIs: T. C. Madkins**, M. Wetzel, & C. Krafka)
- Jan. 2020 – Dec. 2021 Spencer Foundation Conference Grant (\$50K Award), *Centering Black Students in Language Education* (PI: N. Flores, **Co-PIs: T. C. Madkins & U. Anya**) This grant will fund a research-focused conference to develop a research agenda focused on Black students' engagement across language education settings: dual language, English as a Second Language, and world language.
- August 2019 – May 2021 Mindset Scholars Network *K-12 Teachers and Classrooms* (\$160K Award), *Placing Equity in Context: High School Math Teachers' Beliefs and Practices in Racialized Learning Environments* (PI: Y. Irizarry, **Co-PI: T. C. Madkins**) In this project, we use both secondary data analysis and primary data collection to investigate mathematics teachers' beliefs and instructional practices related to fostering and maintaining inclusive learning environments.
- August 2019 – August 2020 *Planet Texas 2050*, a UT Austin Bridging Barriers Research Initiative (\$198K Award), *Texas Water Stories: Local Narratives of Hydrologic Change and Adaptation* (**Co-PIs: P. Adams, C. J. Alvarez, T. Beach, T. C. Madkins, & F. Nxumalo**) This research project focuses on narratives about water in Texas' past, present and future and the social processes through which people

develop their understandings of water's value. We examine Indigenous educators' teaching practices in a summer camp with preschool-aged Latinx children.

- November 2018 – December 2020 The University of Texas at Austin College of Education Small Grant Level II Award (\$10K Award), *Exploring and Developing Preservice Teachers' Understandings of Equitable Pedagogies for Supporting Elementary Students in Science Practices* (PI: T. C. Madkins, Co-PI: M. González-Howard) This research grant funds a multi-case study of elementary preservice teachers (PSTs) and how they develop understandings of equity-focused teaching practices and *Next Generation Science Standards* (NGSS) science practices.
- July 2018 – February 2019 The University of Texas at Austin Graduate School, Office of the Senior Vice Provost, and Dean of Graduate Studies Academic Enrichment Fund (\$1500 Award) This grant funds a college-wide speaker series designed to expose graduate students to top scholars in the field of educational research from UT and external institutions. This grant was supplemented by the COE Dean's Office and the Lippitt Centennial Lectureships.
- July 2018 W. T. Grant Foundation Scholars Program Proposal Submitted: An Examination of Equity-Focused Science Teaching & Learning in K-6 Two-Way Immersion Programs (\$500K Proposal Declined) This grant proposal focused on a study of preservice teacher education programs focused on preparing teachers to work in bilingual education settings and how these teachers develop and engage equity-focused science teaching practices in Central Texas.
- June 2017 – June 2020 Kapor Center (\$10K Award), *Mitigating the Double Bind in Computer Science: A Culturally Relevant Computing Approach* (PI: T. C. Madkins) This research grant provides funding for a study of culturally relevant approaches to teaching computer science in a secondary out-of-school setting with a focus on increasing girls' participation and interest in computer science (CS).

### **PEER-REVIEWED PUBLICATIONS**

\* indicates graduate student co-author.

- Madkins, T. C.**, Howard, N. R., & Freed, N.\* (2020). Engaging equity pedagogies in computer science learning environments. *Journal of Computer Science Integration*, 3(2), 1-27. 10.26716/jcsi.2020.03.2.1 [[Views/Downloads](#): 172]
- McKinney de Royston, M. R., **Madkins, T. C.**, Givens, J. R., & Nasir, N. S. (2020). "I'm a teacher, I'm gonna always protect you": Understanding Black teachers' protection of Black children. *American Educational Research Journal*, Advance Online Release May 12, 2020, 1-39. 10.3102/0002831220921119 [[Citation Count](#): 7; H5 Index: 48; H5 Median: 75; 2019 Impact Factor: 5.013; Acceptance Rate: 4%; [Views/Downloads](#): 2,043]
- Madkins, T. C.**, & McKinney de Royston, M. R. (2019). Illuminating political clarity in science instruction. *Science Education*, 103, 1319-1346. 10.1002/sci.21542 [[Citation Count](#): 8; H5 Index: 35; Impact Factor 3.5; Acceptance Rate: 11%]
- McKinney de Royston, M. R., & **Madkins, T. C.** (2019). A question of necessity or of equity? Full-service community schools and the (mis)education of Black youth. *Journal of Education for Students Placed at Risk (JESPAR)*, 24, 244-271. 10.1080/10824669.2019.1615920 [[Citation Count](#): 7; Acceptance Rate: 21-30%]
- Kloser, M. J., Wilsey, M., **Madkins, T. C.**, & Windschitl, M. (2019). Connecting the dots: High school science teacher candidates' uptake of the core practice of facilitating sensemaking discussions from teacher education experiences. *Teaching and Teacher Education (TATE)*, 80, 115-127 (Open Access). [[Citation Count](#): 13; H5 Index: 69; Impact Factor: 2.686; Cite Score: 5.1; Acceptance Rate: 15%]
- Madkins, T. C.**, Martin, A., Ryoo, J., Scott, K. A., Goode, J., Scott, A., & McAlear, F. (2019). Culturally relevant computer science pedagogy: From theory to practice. *2019 Research on Equity and Sustained*

*Participation in Engineering, Computing, and Technology (RESPECT) Conference Proceedings*, Minneapolis, MN, USA, (pp. 1-4). 10.1109/RESPECT46404.2019.8985773 [[Citation Count](#): 3]

ross, k. m., Nasir, N. S., Given, J. R., McKinney de Royston, M. R., Vakil, S., **Madkins, T. C.**, & Philoxene, D. (2016). “I do this for every reason America doesn’t want me to”: African American male instructors’ pedagogies of love and resistance. *Equity & Excellence in Education*, 49, 85-99. 10.1080/10665684.2015.1122678 [[Citation Count](#): 24; Impact Factor: .97; Acceptance Rate: 20%; Views/Downloads: 730]

Madkins, T. C. (2011). The Black teacher shortage: A literature review of historical and contemporary trends. *The Journal of Negro Education*, 80, 417–427. [[Citation Count](#): 155; Acceptance Rate: 21-30%]

#### **PEER-REVIEWED PUBLICATIONS UNDER REVIEW**

Madkins, T. C. (Revise & Resubmit). I’m not *just* teaching science: Teachers’ understandings of equity-focused STEM instruction. *Journal of Research in Science Teaching*. [H5 Index: 48; Impact Factor: 3.87; Acceptance Rate: 10-15%]

**Madkins, T. C.**, Kim, H. J., Murata, A., Gillingham, D., Shareff, R. L., Fabrega, J., & Casey, A. (Under Review). Learning to teach with vision: Developing preservice elementary teachers’ visions for mathematics through lesson study. *Educational Studies in Mathematics*. [2019 Impact Factor: 1.500; 5-year Impact Factor: 1.726]

Madkins, T. C. (Under Review). Recognizing and sustaining #BlackGirlMagic: Reimagining justice-oriented approaches in teacher education. Invited submission for special issue of *Bank Street Occasional Papers*, Breaking with the Past, Imagining Schooling Anew: Fighting for Justice in Education.

#### **CHAPTERS IN EDITED VOLUMES**

**Madkins, T. C.**, Thomas, J. O., Solyom, J., Goode, J., & McAlear, F. (2020). Learner-centered and culturally relevant pedagogy. In S. Grover (Ed.), *Computer science in K-12: An A-to-Z handbook on teaching programming* (pp. 125-129). Looking Glass Ventures.

McKinney de Royston, M. R., & **Madkins, T. C.** (2020). A question of necessity or of equity? Full-service community schools and the (mis)education of Black youth. In M. G. Sanders & C. Galindo (Eds.), *Reviewing the Success of Full-Service Community Schools in the US* (pp. 63-97). Routledge. 10.4324/9781003010388 [[Citation Count](#): 2]

**Madkins, T. C.**, & Nasir, N. S. (2019). Building on students’ cultural practices in STEM. In I. M. García-Sánchez & M. Faulstich Orellana, (Eds.), *Everyday learning: Leveraging nondominant youth language and culture* (pp. 59-75). Routledge. [[Citation Count](#): 3]

#### **OTHER PUBLICATIONS**

**Madkins, T. C.**, Waite, S. R., & Goings, R. (2020, October 3). NPR, PBS, and KQED Mind/Shift Podcast Episode: [Answering your questions about racism in schools](#). Available online November 2020.

**Madkins, T. C.**, & Patterson Williams, A. (2020, August 14). We choose to reimagine education: Centering love and humanizing pedagogies in a pandemic. *Teaching and Learning During a Pandemic Blog Post Series*. [Albert Shanker Institute](#).

**Madkins, T. C.**, Waite, S. R., & Goings, R. (2020, August – September). NPR/PBS/KQED Mind/Shift. Teacher Newsletter, Your questions about racism, answered, Parts 1-6.

**Madkins, T. C.**, Irizarry, Y., Sivels, C., & Nuñez, A. M. (2020, August 12). [r/science: Challenges and discrimination facing Black, Indigenous, and other People of Color \(BIPOC\) in STEM](#). Reddit.com

**Madkins, T. C.** (2020, June 5). Resources for understanding and supporting #BlackLivesMatter (a public-facing Google doc with a curated list of resources). DOI pending.

Scott, A., Martin, A., McAlear, F., & **Madkins, T. C.** (2016, December). Broadening participation in computer science: Existing out-of-school initiatives and a case study. *ACM Inroads*, 7, 84-90. 10.1145/2994153 [[Citation Count](#): 11]

### **AWARDS, HONORS, & FELLOWSHIPS**

- July 2019      Visiting Faculty Affiliate, Teachers College, Columbia University
- June 2019      Center for Innovation in Teacher Education and Development (CITED) Summer Workshop in London (King's College London): Researching Teacher Education Fellow
- June 2019      Grant Writing Bootcamp Selected Participant, Department of Curriculum and Instruction, College of Education, The University of Texas at Austin
- April 2018      American Educational Research Association (AERA) Division K 2018 Pre-Conference Early Career Scholar Award (\$200 Award)
- April 2018      AERA Division G 2018 Pre-Conference Early Career Scholar Award, New York, NY
- April 2018      CITED 2018 Pre-Conference Publishing Workshop for Early Career Scholars and Advanced Graduate Students, Teachers College, Columbia University, New York, NY
- March 2018      National Association of Research in Science Teaching (NARST) 2018 Annual Meeting, Pre-Conference Early Career Faculty Forum, Atlanta, GA
- Spring 2016      Ford Foundation Dissertation Fellowship Honorable Mention List

### **PEER-REVIEWED CONFERENCE PRESENTATIONS**

\* indicates graduate student co-author.

González-Howard, M., **Madkins, T. C.**, Russo-Tait, T. \*, & Sherard, M. \* (2020, March). Exploring preservice teachers' developing understandings of equitable pedagogies for engaging elementary students in science practices. Poster session for the Basu Scholars Symposium at the annual meeting of the National Association for Research in Science Teaching (NARST), Portland, OR. (Conference canceled).

Madkins, T. C. (2019, November). Black teachers' protection of Black students in STEM learning environments: Disrupting anti-Black climates. In T. C. Madkins (Chair), *Envisioning Educational Futures: Disrupting AntiBlackness and Settler Colonialism in STEM Education*. Paper presented at the annual meeting of the American Studies Association, Honolulu, HI.

Madkins, T. C. (2019, April). I'm not just teaching science: A case study of STEM teachers' dispositions towards equity-focused teaching. Paper presented at the annual meeting of AERA, Toronto, Ontario, Canada.

**Madkins, T. C.**, & Nasir, N. S. (2019, April). Emotional responsiveness as a key component of learning ecologies: A view from multiple settings. In C. Lee (Chair), *Social Epistemologies That Consolidate Complexity, Weighing Evidence and Interrogating Emotional Response*. Symposium conducted at the annual meeting of AERA, Toronto, Ontario, Canada.

**Madkins, T. C.**, Norris, A., Russo-Tait, T. \*, & Rodriguez, N. \* (2019, April). Culturally relevant computing in action: Engaging youth from nondominant communities in computer science learning environments. Paper presented at the annual meeting of AERA, Toronto, Ontario, Canada.

- Norris, A., **Madkins, T. C.**, Rodriguez, N. \*, & Russo-Tait, T. \* (2019, April). Confusion and empowerment: How girls contend with racism and sexism in computer science. Paper presented in the symposium, From Double Dutch to the Double Bind: Examinations of Dual Marginalization of Black Girls in Educational Contexts, at the annual meeting of AERA, Toronto, Ontario, Canada.
- Madkins, T. C.**, Martin, A., Ryoo, J., Scott, K. A., Goode, J., Scott, A., & McAlear, F. (2019, February). Culturally relevant computer science pedagogy: From theory to practice. Paper presented at the 2019 Research on Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT) Conference, Minneapolis, MN.
- Madkins, T. C.**, Norris, A., Russo-Tait, T. \*, & Rodriguez, N.\* (2018, October). *Now I'm getting help!*: Engaging girls from nondominant communities in STEM learning environments. Paper presented at the 44<sup>th</sup> Annual Research on Women and Education [Special Interest Group (SIG) of AERA] Fall Conference, San Antonio, TX.
- Kloser, M. K., Wilsey, M. \*, **Madkins, T. C.**, Windschitl, M., Wells, A., Davis, E. A., & Carlson, J. (2018, March). Connecting the dots: Secondary science teacher candidates' uptake of facilitating discussions from teacher education experiences. Paper presented at the annual meeting of NARST, Atlanta, GA.
- Martin, A., **Madkins, T. C.**, & McAlear, F. (2017, April). Leveling the coding field: Culturally relevant computer science in the SMASH Academy. Paper presented at the annual meeting of AERA, San Antonio, TX.
- Madkins, T. C.**, & Horwitz, R. (2016, October). From theory to practice: Culturally relevant pedagogy STEM interventions for underrepresented students. Presentation at California STEM Symposium, Anaheim, CA.
- Madkins, T. C.**, & Nasir, N. S. (2016, April). Politically relevant science instruction: How an urban middle school science teacher enacts an equity pedagogy. Paper presented at annual meeting of AERA, Washington, D.C.
- Martinez, E., **Madkins, T. C.**, Bachman, P., & Arteaga, N. (2016, April). "A theoretical examination of African American college access and choice." In E. Comeaux (Chair), African American students navigating college access and choice. Symposium conducted at the annual meeting of AERA, Washington, D. C.
- Murata, A., McGee, A., **Madkins, T. C.**, Fabrega, J., Kim, H. J., Gillingham, D., & Shareff, B. L. (2016, April). Case of preservice elementary mathematics lesson study: Teacher visions and learning process to teach. Paper presented at the annual meeting of AERA, Washington, D. C.
- Murata, A., McGee, A., **Madkins, T. C.**, Gillingham, D., Fabrega, J., Kim, H. J., & Shareff, B. L. (2016, April). Preservice elementary mathematics lesson study: Visions and learning to teach. Paper presented at the annual meeting of the National Council of Teachers of Mathematics (NCTM), San Francisco, California.
- Murata, A., Scott, M., **Madkins, T.**, Gillingham, D., Kim, H. J., McGee, A., Siker, J., & Hobson, A. (2015, April). Strategies and tools for teaching mathematics through inquiry: Preservice elementary teacher education. In A. Murata (Chair), Preservice Teacher Development Through Lesson Study in Two Cultures: Comparative Analysis. Symposium conducted at the annual meeting of AERA, Chicago, Illinois.
- ross, k. m., Nasir, N. S., Given, J. R., Vakil, S., Philoxene, D., McKinney de Royston, M. R., & **Madkins, T. C.** (2015, April). "I do this for every reason America doesn't want me to": African American male instructors' pedagogies of love and resistance. Poster session conducted at the annual meeting of AERA, Chicago, Illinois.
- Madkins, T. C. (2014, April). The changing color of teaching: Understanding the barriers and possibilities for increasing the Black teacher workforce. In M. McKinney de Royston (Chair), Black Schools, Black Teachers: Understanding A Legacy of Black Educators and Black Educational Practice. Symposium conducted at the annual meeting of AERA, Philadelphia, Pennsylvania.
- Madkins, T. C. (2012, April). The Black teacher shortage: A literature review of historical and contemporary trends.

In I. A. Toldson, C. W. Lewis, & Y. Sealey-Ruiz (Chairs), *Teacher Education and the Black Community: Preparing Teachers to Teach Black students, Preparing Black Students to Become Teachers*. Symposium conducted at the annual meeting of AERA, Vancouver, British Columbia.

### **INVITED RESEARCH PRESENTATIONS**

**Madkins, T. C.**, Howard, N. R., & Jones, S. (2021, February 2). *Equity-focused teaching in K-12 CS: Strategies for Teachers, Teacher Educators, and Districts*. Raspberry Pi Foundation.

**Madkins, T. C.** (2020, November 20). *Racialized experiences in K-16 education: Understanding systemic racism*. The University of Texas at Austin, Sanger Learning Center.

**Madkins, T. C.** (2020, October 23). *Issues of diversity, equity, and inclusion in the STEM fields*. The University of Texas at Austin, Institute for Neuroscience.

**Madkins, T. C.**, & Russo-Tait, T. (2020, October 21, 28). *Diversity and racial disparities in STEM: Parts I and II*. The University of Texas at Austin, College of Natural Sciences, MOL 190C.

Madkins, T. C. (2019, November 18). *"I'm not just teaching science!": STEM teachers' conceptions of equity*. Invited speaker. Boston College Lynch School of Education Speaker Series, Boston, MA.

Madkins, T. C. (2019, May 7). *"I'm not just teaching science!": STEM teachers' conceptions of equity*. Invited research panelist, University of California, Davis School of Education *Emerging Scholars Panel 2019*, Davis, CA.

**Madkins, T. C.**, & Norris, A. (2018, March). *"I felt empowered!": A culturally relevant computing approach for engaging girls*. Paper presented at the Kapor Center Convening, *Disrupting bias: Evidence-based solutions to increase diversity in tech*, Oakland, CA.

Madkins, T. C. (2018, March). *STEM teaching and learning with equity in mind: Lessons for changing times*. Invited research panelist for the University of California, Berkeley Graduate School of Education Research Day Conference, Berkeley, CA.

Madkins, T. C. (2018, March). *Invited plenary session presentation* at the *annual professional development meeting* of the California Association of African-American Superintendents and Administrators (CAAASA), Sacramento, CA.

### **ACCEPTED PEER-REVIEWED CONFERENCE PRESENTATIONS**

"It's Our Responsibility as Teacher Educators": Toward Justice in Brazilian Public Schooling. (2021, April). M. Souto-Manning (Chair), **T. C. Madkins** (Discussant), M. Boveda (Discussant), D. C. Martinez (Discussant), & J. Stillman (Discussant). Symposium to be conducted by Division K at the 2021 annual meeting of AERA, Orlando, FL.

In the Pursuit of Justice in Brazilian Public Schooling. (2021, April). M. Souto-Manning (Chair), **T. C. Madkins**, (Discussant), M. Boveda (Discussant), D. C. Martinez (Discussant), C. de los Rios (Discussant), & J. Stillman (Discussant). Symposium to be conducted by the Committee on Scholars of Color in Education at the 2021 annual meeting of AERA, Orlando, FL.

McKinney de Royston, M. R., & **Madkins, T. C.** (2021, April). Necessity or equity? Full-service community schools and the (mis)education of Black youth. In M. G. Sanders (Chair), C. L. Galindo (Discussant). Meeting Educational Responsibility through Research on Full-Service Community Schools. Symposium to be conducted by Family, School, Community Partnerships SIG at the 2021 annual meeting of AERA, Orlando, FL.

The Cultural Politics of Health/Pathology in STEM Education Reforms Past and Present. (2021, April). K. L. Kirchgassler (Chair), **T. C. Madkins** (Discussant), & N. Sinclair (Discussant). Paper session to be presented at the 2021 annual meeting of AERA, Orlando, FL.

**Madkins, T. C., & Nxumalo, F.** (2021, April). Teachers' protection of BIPOC students in K-8 STEAM classrooms: Pedagogical practices for transformational learning. In K. Schenkel (Chair) & T. Philip (Discussant), *Science Teaching and Learning Towards Collaborative Social Transformation and Justice*. Structured poster session to be presented at the 2021 annual meeting of AERA, Orlando, FL.

Davis, K., White, S., **Madkins, T. C.**, Sobomehin, O., & Martin, S. (2021, March 13-20). Re-imagining equitable computer science education: Culturally relevant computing in practice. Paper session to be presented at the 52<sup>nd</sup> annual virtual meeting of the Association for Computing Machinery (ACM) Special Interest Group on Computer Science Education (SIGCSE) Technical Symposium on Computer Science Education.

Nxumalo, F., & **Madkins, T. C.** (2021, July 7-9). Decolonizing environmental education: Learning from intergenerational pedagogies at a San Marcos summer camp. Paper to be presented at the 2020 + 1 World Education Research Association (WERA) Focal Meeting, Santiago de Compostela, Spain.

#### **SUBMITTED PEER-REVIEWED CONFERENCE PRESENTATIONS**

**Madkins, T. C., & Nxumalo, F.** (Under Review). Teachers' protection of Black and Indigenous students in urban K-8 STEAM classrooms. Paper submitted to be presented at the 2021 International Conference on Urban Education (ICUE), Nassau, Bahamas.

**Madkins, T. C., Sherard, M. & Harris, K.** (Under Review). Week five—The equity week: Supporting preservice elementary teachers in understanding equity in science education. Paper submitted to be presented at the 2021 International Conference on Urban Education (ICUE), Nassau, Bahamas.

#### **INVITED PANELIST PRESENTATIONS**

**Madkins, T. C., Howard, N. R., & Jones, S.** (2021, January 20). *Empowerment through Healing: Understanding and Responding to Race-Based Trauma in Education*. [Wellness for Educators](#).

**Madkins, T. C., Marshall, S., & Grooms, A. A.** (2020, December 17). *Race, Equity, and the Future of Education Policy in Computer Science*. [Expanding Computing Education Pathways Alliance Group](#).

Madkins, T. C., Harrison, L., Riegle-Crumb, C., de Lissovoy, N., & Garces, L. (2020, December 15). *Creating a Writing Plan: Publishing in Academia*. [Agency and Young Children Research Collective](#). The University of Texas at Austin.

Madkins, T. C. (2020, October 13). [Invited panelist](#). Project Lead the Way. [Equity and Access in Distance Learning: Ensuring EVERY Student Receives a Quality Education](#).

Madkins, T. C. (2020, September 25). Invited panelist. Children at Risk, Shell, Texas Family Leadership Council. Annual STEM Informational Event: [Building Diversity and Equity in STEM](#).

Madkins, T. C. (2020, September 17). Invited panelist. Colorado River Alliance. River Reflections Series: [Women in STEM](#).

Madkins, T. C. (2020, August 13). *COVID-19 and the STEM Education Gap: How Diverse Women Lead the Charge*. Association for Women in Science (AWIS) Seattle.

Madkins, T. C. (2020, July 23). [Computer Science in K-12: An A-Z Handbook on Teaching Programming Book Talk with Authors](#).

Madkins, T. C. (2019, November 4). *Intersectional approaches to working with girls in computer science classrooms*. The University of Texas at Austin, Texas Advanced Computing Center (TACC), Accelerating Women's Success and Mastery in Computer Science Fall Cohort Meeting, Austin, TX.

Madkins, T. C. (2018, August 7-8). Invited panelist, [Branch Alliance for Educator Diversity](#), [Quality IS Diversity: Bridging the Action Gap](#), Austin, TX.

Martin, A., Peters-Burton, E. E., & **Madkins, T. C.** (2017, April). STEM education and school leadership: Equitably accessing the playing field. Invited speaker session at the annual meeting of AERA, San Antonio, TX.

### **RESEARCH EXPERIENCE**

Consultant, Summer 2020 – Summer 2023

Project: Mathematics Teachers' Professional Development and the Teaching of Statistics in Elementary and Middle School with Rede Educação Em Matemática Nordeste (REM-N) [Math Education Northeast Network] (Co-PIs: E. Santana & I. Cazorla, Universidade Estadual de Santa Cruz; C. Barros Nunes, Universidade Estadual da Bahia; J. Aires de Castro & J. Braga de Castro, Universidade Federal do Ceará; D. L. Maia, Universidade Federal do Rio Grande do Norte; & R. Lacerda de Carvalho, Universidade Federal do Cariri)

Co-PI, Fall 2019 – Spring 2021

Project: Placing Equity in Context: High School Math Teachers' Beliefs and Practices in Racialized Learning Environments (PI: Y. Irizarry, Funded by Mindset Scholars Network)

Co-PI, Summer 2019 – Present

Project: Exploring Place-Based Environmental Education with Young Children (PI: F. Nxumalo, Funded by The University of Texas at Austin Planet Texas 2050 Initiative)

Co-PI, Spring 2019 – Present

Project: Exploring and developing preservice teachers' understandings of equity-focused science teaching practices for supporting elementary students in science learning (Co-PI, M. González-Howard, Funded by The University of Texas at Austin College of Education)

PI, Summer 2017 - Present

Project: Mitigating the Double Bind in Computer Science: A Culturally Relevant Computing Approach (Funded by the Kapor Center Grants for Inclusive Tech)

Postdoctoral Scholar, Notre Dame Center for STEM Education, Fall 2016 - Summer 2017

Projects: Trustey Family STEM Teaching Fellows, Core Practices Consortium Core Instructional Practices in Science, M. Kloser, PI

Researcher, Summer 2015 - Summer 2016

Project: University of California Office of the President (UCOP), Project Examining College Choice, Enrollment, and Linkages (EXCEL), F. Contreras, T. Chapman, E. Comeaux, M. Hutson, and G. Rodriguez, PIs (Funded and commissioned by the University of California Office of the President)

Researcher, Spring 2014 – Summer 2016

Projects: Structural Racialized Assessments and Targeted Universalism Strategies (SRATUS), N. S. Nasir, PI

Researcher, Spring 2014 - Fall 2016

Project: Cross-Cultural Analysis of Teacher Learning, A. Murata, PI

Researcher, September 2009 – August 2011

Project: Conceptual Understandings of Evolution (CUE) 2/3, K. Metz, PI

### **SERVICE TO THE UNIVERSITY OF TEXAS AT AUSTIN**

#### **The University of Texas at Austin**

McNair Scholars STEM Faculty Director, Summer 2019 – Present

Association for Women in Science (AWIS) at UT, Advisory Council Faculty Member, 2020 – 2021

The University of Texas System, ElevateTXed, UT Austin Ambassador 2020 – 2021

#### **College of Education**

*Gone to Education*, Meet Your Professors Breakout Room, Fall 2020

*Dean's Welcome Event*, Summer 2020



Charles E. Butt Scholarship Review Committee, 2020 – Present  
 Teacher Education Committee, STEM Education Program Faculty Representative, Fall 2018 – Present  
 EC-6 Degree Revision Committee Member, Spring 2019 – Present  
 Cross-Cutting Themes and Creed Statements, Sub-Committee Member, Fall 2018 – Spring 2019  
ED Talks Series Coordinator for Department of Curriculum and Instruction (Sponsored by The Graduate School Academic Enrichment Fund and College of Education), Summer 2018 – Fall 2019  
 Fall 2019: Nelson Flores, University of Pennsylvania Graduate School of Education  
 Spring 2019: Mariana Souto-Manning, Teachers College, Columbia University  
 Spring 2019: David E. Kirkland, New York University Steinhardt School of Culture, Education, and Human Development

### **Department of Curriculum and Instruction**

*Graduate Studies Committee* (GSC), Spring 2018 – Present  
 Nominating Sub-Committee, Spring 2018  
 Student Travel Award Committee, Fall 2018 – Present  
*Social Justice Praxis Task Force*, Spring 2018 – Present  
 Faculty Sub-Committee, Fall 2018 – Present  
*Guest Lecturer*, EDC 370E: Science, Mathematics, Spring 2018 – Present  
*Guest Lecturer*, EDC 341D: Early Childhood Education Program Development, Spring 2018

### **STEM Education**

*Graduate Studies Committee*, Spring 2018 – Present  
 Secretary, 2019 – 2021  
*Faculty Search Committee Member*, September 2019 – February 2020

### **ACADEMIC-RELATED SERVICE TO THE PROFESSION**

#### **Invited Panel Reviewer**

New Frontiers in Research Fund (NFRF), Social Sciences and Humanities Research Council of Canada, 2020 – Present  
 National Science Foundation (NSF), 2019 – Present

#### **Journal Reviewer**

*American Educational Research Journal*, 2019 – Present  
*AERA Open*, 2018 – Present  
*Bilingual Research Journal*, 2018 – Present  
*Journal for Research in Science Teaching*, 2018 – Present  
*The Journal of Negro Education*, 2011 – Present  
*Race Ethnicity & Education*, 2017 – Present  
*Science Education*, 2018 – Present

#### **Professional Organization Membership**

[American Educational Research Association \(AERA\)](#), 2012 – Present  
*2021 Annual Meeting Conference Proposals Reviewer*, Division G: Social Context of Education, Section 3: Languages, Literacies, and Representations; Research Focus on Black Education SIG  
*Annual Meeting Session Chair*, 2014  
[American Studies Association](#), 2019  
[National Association for Research in Science Teaching \(NARST\)](#), 2016 – Present  
*Annual Meeting Session Presider*, 2018  
[Wellness for Educators](#), Board Member, 2020 – Present

### **TEACHING**

#### **Undergraduate Courses**

EDC 370E (Science): *Elementary Science Methods* (SP 18, FA 19, SP 20)

#### **Graduate Courses**

STM 390T: *Advanced Topics Graduate Seminar on The Craft of Academic Writing: Cultivating Your Scholarly*

*Voice* (SP 20)

STM 390T: *Advanced Topics Graduate Seminar on Research on PK-8 STEAM Teaching and Learning* (SP 19)

STM 390: *Equity in STEM Education* (FA 19)

### **GRADUATE STUDENT SUPERVISION**

Gareth Gingell (Chair), STEM Education

Max Sherard (Chair), STEM Education

Maya Denton, STEM Education

Stacy Jones, STEM Education

Alicia Montecinos, STEM Education

Ursula Nguyen, STEM Education

Tatiane Russo-Tait, STEM Education

Ryan Torbey, STEM Education

Joel Walsh, STEM Education

Sarah Zalcman, Curriculum & Instruction, Teachers College, Columbia University (External Committee Member)

### **PROFESSIONAL EXPERIENCE**

- 2015 – 2016      **STEAM Instructional Coach**, West Oakland Middle School, Oakland Unified School District, Oakland, CA
- 2015 – 2016      **Lead Instructor**, Summer Math and Science Honors (SMASH) Academy: Berkeley, CA
- 2013 – 2015      **Graduate Student Mentor**, University of California, Berkeley, Student Athlete Academic Services
- 2013 – 2014      **Instructor**, Bay Area Training Teaching Institute (BATTI), University of the Pacific, Benerd School of Education, Oakland, CA/Stockton, CA (EDU 151: *Teaching Science to Young Students*)
- 2011 – 2015      **Graduate Student Instructor**, University of California, Berkeley, Graduate School of Education, Berkeley, CA [EDUC C181/AAS C133: *Race, Identity, and Culture in Urban Schools*; EDUC 205: *Instruction, Learning, and Development*; EDUC 236A: *Science Education for Young Students*; EDUC 390: *Student Teaching Supervision for Developmental Teacher Education (DTE)*]
- 2009 – 2016      **Graduate Student Researcher**, University of California, Berkeley, Graduate School of Education and College of Environmental Design, Berkeley, CA
- 2008 - 2009      **Teacher Educator**, Los Angeles Unified School District (LAUSD) Intern Program and LAUSD Gifted and Talented Education, Los Angeles, CA
- 2002 – 2009      **Elementary School Teacher**, Mt. Washington Elementary, LAUSD, Los Angeles, CA