

Curriculum Vitae

Ian Thacker

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Updated November 18, 2024

PROFESSIONAL APPOINTMENTS

2020–present **University of Texas at San Antonio**
Assistant Professor, Department of Educational Psychology

EDUCATION

2015–2020 **University of Southern California**
Ph.D. Urban Education Policy, Educational Psychology concentration
Advisor: Gale M. Sinatra, Ph.D.
Dissertation Title: *The Influence of Numerical Estimation Skills and Epistemic Cognition in Plausibility Judgments and Conceptual Change*
Conferral Date: 11-August 2020

2017–2018 **University of Southern California**
M.S. Statistics
Department of Mathematics

2008–2010 **University of California, Berkeley**
M.A. and Credential in Science and Mathematics Education (MACSME)
Single Subject Credential: Mathematics

2001–2005 **University of Colorado, Boulder**
B.A. Mathematics
B.A. Physics

EVIDENCE OF IMPACT METRICS

Google Scholar: Citations: 645 | h-index: 11 | i10-index: 13

Peer Reviewed Publications (32): Journals (20); Chapters (1); Conference Proceedings (11)

Other Outputs (75): Conference Presentations (68); General Audience Publications (7)

Research Grants [\$2mil] (7): Federal-PI (1); Federal-consultant (1); Nonprofit (3); Internal (2)

Media Coverage (10): Newspaper (2); Radio (1); News Blog (5); Institutional (2)

Awards (4): Graduate Achievement (2); Graduate Research Excellence (2); Nominations (3)

RESEARCH / PUBLICATIONS

Note. *Indicates student co-author. Journal Impact Factor metrics from 2023 Clarivate Journal Citation Reports.

Peer-Reviewed Journal Publications

20. Copur-Gencturk, Y., **Thacker, I.**, & Cimpian, J. R. (2024). An Exploratory Experiment Investigating Teachers' Attributional Race and Gender Bias and the Moderating Effects of Personal Experience of Racial Discrimination. *Contemporary Educational Psychology*. Advance Online Publication. <https://doi.org/10.1016/j.cedpsych.2024.102317> (Impact factor: 3.9)
19. **Thacker, I.**, Shroeder, R., & Shields-Menard, S., & Goforth, N.* (2024). Dirt Don't Hurt: How relevant soil data can support learning and motivation at a Hispanic Serving Institution. *International Journal of Science and Mathematics Education*. Advance Online Publication. <https://doi.org/10.1007/s10763-024-10491-1> (Impact factor: 1.9)
18. **Thacker, I.** (2024). Supporting secondary students' climate change learning and motivation using novel data and data visualizations. *Contemporary Educational Psychology*, 78, 102285. <https://doi.org/10.1016/j.cedpsych.2024.102285> (Impact factor: 3.9)
17. **Thacker, I.**, French, H.*, & Feder, S. (2024). Estimating climate change numbers: Mental computation strategies that can support science learning. *International Journal of Science Education*. Advance Online Publication. <https://doi.org/10.1080/09500693.2024.2307473> (Impact factor: 2.2)
16. **Thacker, I.** (2023). Climate change by the numbers: Leveraging mathematical skills for science learning online. *Learning & Instruction*, 86, 101782. <https://doi.org/10.1016/j.learninstruc.2023.101782> (Impact factor: 4.7)
15. Copur-Gencturk, Y., **Thacker, I.** & Cimpian, J. R. (2023). Teachers' race and gender biases and the moderating effects of their beliefs and dispositions. *International Journal of STEM Education*, 10(31), 1–25. <https://doi.org/10.1186/s40594-023-00420-z> (Impact factor: 5.6)
14. **Thacker, I.**, Seyranian, V., Madva, A., & Beardsley, P. (2022). STEM faculty's support of togetherness during mandated separation: Accommodations, caring, crisis management, and powerlessness. *Education Sciences*, 12(9), 632. <https://doi.org/10.3390/educsci12090632> (Impact factor: 2.5)

13. Copur-Gencturk, Y., **Thacker, I.** & Cimpian, J. R. (2022). Teacher bias in the virtual classroom. *Computers & Education*, 191, 104627. <https://doi.org/10.1016/j.compedu.2022.104627> (Impact factor: 8.9)
12. **Thacker, I.** & Sinatra, G. M. (2022). Supporting climate change understanding with novel data, estimation instruction, and epistemic prompts. *Journal of Educational Psychology*, 114(5), 910–927. <https://doi.org/10.1037/edu0000729> (Impact factor: 5.6)
11. **Thacker, I.**, Seyranian, V., Madva, A., Duong, N.*, & Beardsley, P. (2022). Social connectedness in physical isolation: Online teaching practices that support underrepresented undergraduate students' feelings of belonging and engagement in STEM. *Education Sciences*, 12(2), 61. <https://doi.org/10.3390/educsci12020061> (Impact factor: 2.5)
10. Jacobson, N., **Thacker, I.**, & Sinatra, G. M. (2021). The importance of emotions in mediating the backfire effect of refutation text. *Discourse Processes*, 59(1-2), 13–35. <https://doi.org/10.1080/0163853X.2021.1925059> (Impact factor: 2.1)
9. Kennedy, A., **Thacker, I.**, & Sinatra G. M., Nye, B., Swartout, W., & Lyndsey, E. (2021). AR for Tar: Correcting Scientific Misconceptions with Augmented Reality in a Museum Setting. *International Journal of Science Education*, 11(3) 242–258. <https://doi.org/10.1080/21548455.2021.1946619> (Impact factor: 2.2)
8. MacNaul, H. L., Garcia, R., Civdini-Motta, C., & **Thacker, I.** (2021). Effect of assignment choice on student academic performance in an online class. *Behavior Analysis in Practice*, 14, 1074–1078. <https://doi.org/10.1007/s40617-021-00566-8> (Impact factor: 2.1)
7. Copur-Gencturk, Y. & **Thacker, I.** (2021). A comparison of perceived and observed learning from professional development: Relationships among self-reports, direct assessments, and teacher characteristics. *Journal of Teacher Education*, 72(2), 138–151. <https://doi.org/10.1177/0022487119899101> (Impact factor: 3.1)
6. Copur-Gencturk, Y., **Thacker, I.**, & Quinn, D. (2021). K-8 Mathematics teachers' overall and gender-specific beliefs about mathematical aptitude. *International Journal of Science and Mathematics Education*, 19(6), 1251–1269. <https://doi.org/10.1007/s10763-020-10104-7> (Impact factor: 1.9)
5. **Thacker, I.** (2020). An embodied design for grounding the mathematics of slope in middle-school students' perceptions of steepness. *Research in Mathematics Education*, 22(3), 304–328. <https://doi.org/10.1080/14794802.2019.1692061> (Impact factor: 1.3)
4. **Thacker, I.**, Sinatra G. M., Muis, K. R., Danielson, R. W., Pekrun, R., Winne, P. H., & Chevrier, M. (2020). Using persuasive refutation texts to prompt attitudinal and

conceptual change. *Journal of Educational Psychology*, 112(6), 1085–1099.
<https://doi.org/10.1037/edu0000434> (Impact factor: 5.6)

3. Copur-Gencturk, Y., Cimpian, J. R., Lubienski, S. T., & **Thacker, I.** (2020). Teachers' Bias Against the Mathematical Ability of Female, Black, and Hispanic Students. *Educational Researcher*, 49(1), 30–43. <https://doi.org/10.3102/0013189X19890577> (Impact factor: 5.4)
2. Kim, A. Y. & **Thacker, I.** (2020). A good sine? Seeking math help using online discussion boards. *E-Learning and Digital Media*, 17(1) 78–93.
<https://doi.org/10.1177/2042753019874142> (Impact factor: 2.6)
1. **Thacker, I.** & Sinatra, G.M. (2019). Visualizing the greenhouse effect: Restructuring mental models of climate change through a guided online simulation. *Education Sciences*, 9(1), 14. <https://doi.org/10.3390/educsci9010014> (Impact factor: 2.5)

Invited Publications

1. **Thacker, I.**, Copur-Gencturk, Y., & Cimpian, J. R. (2022). Teacher bias: A discussion with special emphasis on gender and STEM learning. In T. L. Good & M. McCaslin (Eds.), *The Routledge Encyclopedia of Education: Educational Psychology Edition*. Routledge. <http://doi.org/10.4324/9781138609877-REE185-1>

Refereed Proceedings Papers

11. **Thacker, I.**, Martinez, D.,* & Lester, K.,* (2024). An Estimation Game to Promote Secondary Students' Climate Change Understanding Using Data and Visualizations. *Proceedings of the forty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 2075–2081). Cleveland, OH. <https://doi.org/10.51272/pmena.46.2024>
10. **Thacker, I.**, Schroeder, R., & Shields-Menard, S. (2024). Dirt Don't Hurt: How Relevant Soil Data Can Support Learning and Motivation at a Hispanic Serving Institution. *Proceedings of the forty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1467–1472). Cleveland, OH. <https://doi.org/10.51272/pmena.46.2024>
9. Schroeder, R., Niu, J., Malshe, A., Hum, S., Flemming S., **Thacker, I.** (March, 2024) Enabling Widespread Engagement in DS and AI: The Generation AI Curriculum Initiative for Community Colleges. *Special Interest Group on Computer Science Education (SIGCSE) Proceedings of the 55th ACM Technical Symposium on Computer Science Education*. (Vol 2, p. 1938). Portland, OR.
<https://doi.org/10.1145/3626253.3635343>

8. Seyranian, V., **Thacker, I.**, Madva, A., Abramzon, N., & Beardsley, P. (2023). A Utility Value Intervention to support undergraduate student interest, engagement, and achievement in calculus and calculus-based physics. *Proceedings of the forty-fifth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol 2, pp. 464-473). Reno, NV. <https://doi.org/10.51272/pmena.45.2023>
7. **Thacker, I.** (2022). Climate change by the numbers: How numerical estimation can support science learning. In A. E., Lischka, E. B., Dyer, R. S., Jones, J., Lovett, J., Strayer, S., & Drown (Eds.). *Proceedings of the forty-fourth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 2057-2065). Middle Tennessee State University. <https://doi.org/10.51272/pmena.44.2022>
6. **Thacker, I.**, Broadway, R.*, & Feder, S. (2021). Estimating climate change numbers: How tolerance for error can support science learning. In D. Olanoff, K. Johnson, & S. M. Spitzer (Eds.). *Proceedings of the forty-third annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1738-1743). Philadelphia, PA.
5. **Thacker, I.** (2020). Numerical estimation skills, epistemic cognition, and climate change: Mathematical skills and dispositions that can support science learning. In A.I. Sacristán, J.C. Cortés-Zavala & P.M. Ruiz-Arias, (Eds.). *Mathematics Education Across Cultures: Proceedings of the Forty-Second Annual Meeting of the North-American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1054-1062). Mazatlán, Sinaloa, Mexico. <http://doi.org/10.51272/pmena.42.2020-166>
4. **Thacker, I.** & Rasiej, R. (2020). Mathematics teachers' epistemic dispositions and their relationship with teacher instruction and student learning: A systematic research synthesis. In A.I. Sacristán, J.C. Cortés-Zavala & P.M. Ruiz-Arias, (Eds.). *Mathematics Education Across Cultures: Proceedings of the Forty-Second Annual Meeting of the North-American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 2126-2132). Mazatlán, Sinaloa, Mexico. <http://doi.org/10.51272/pmena.42.2020-358>
3. Copur-Gencturk, Y., Du, H., & **Thacker, I.** (2020). Differences in mathematical ability beliefs between teachers and mathematicians in higher education. In A.I. Sacristán, J.C. Cortés-Zavala & P.M. Ruiz-Arias, (Eds.). *Mathematics Education Across Cultures: Proceedings of the Forty-Second Annual Meeting of the North-American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 573-577). Mazatlán, Sinaloa, Mexico. <http://doi.org/10.51272/pmena.42.2020-78>
2. Rodrigues, J. & **Thacker, I.** (2019) Refuting a fraction misconception: A brief intervention promotes teachers' conceptual change. In S. Otten, A. G. Candela, Z. Araujo, C.

Haines, & C. Munter (Eds.), *Proceedings of the Forty-First Annual Meeting of the North-American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 8, pp. 731-735). St Louis, MA: University of Missouri. ISBN: 978-0-578-57791-3

1. Abrahamson, D., Bryant, M. J., Gutiérrez, J. F., Mookerjee, A. V., 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. ISBN: 978-0-615-31397-9 [**Author names are in alphabetical order**]

Work under Review

Emenaha, U. & **Thacker, I.**, & Leihnsing, S.* (under review). *Invisible Barriers: Examining Pre-Service Teachers Understanding of Implicit Bias in STEM Education*

Copur-Gencturk, Y., **Thacker, I.**, & Cimpian, J. R. (under review). *The Effect of Promoting High Expectations on Teachers' Feedback to Students.*

Manuscripts in Preparation

Thacker, I., Lee, H.B., & Cimpian, J. R. (manuscript in preparation). *Intersectional race-gender disparities in STEM throughout the achievement distribution: A consideration (and rejection) of the comparative advantages hypothesis.*

Thacker, I., Martinez, D. (manuscript in preparation). *Leveraging Student Assets for Integrated STEM Learning: A Design-Based Research Approach to Promote Game-Based Learning.*

Thacker, I., Broadway, R.*, Sinatra, G. M., & Rasiej, R. (manuscript in preparation). *Mathematics teachers' epistemic cognition and its relationship with teacher instruction and student achievement: A systematic research synthesis.*

Seyranian, V., **Thacker, I.**, Madva, A., Abramzon, N., & Beardsley, P. (manuscript in preparation). *A Utility Value Intervention to support undergraduate student interest, engagement, and achievement in calculus and calculus-based physics.*

HONORS AND AWARDS

2023 & 2024	UTSA Presidential Award for Research Excellence, COEHD <i>Nominee</i>
2022	UTSA Presidential Award for Teaching Excellence, COEHD <i>Nominee</i>
2020	USC Ph.D. Achievement Award

2020 USC Student Recognition Award: The Order of Arête
2019 SCIPIE Graduate Student Poster Award
2018 Richard C. Anderson Graduate Student Research Award

GRANTS

Funded Grants

- 2025–2026 **Understanding Students’ Pursuit and Attainment of STEM Degrees Across Race and Gender Intersections. (#10054366)**
Spencer Foundation: Small Research Grant
Role: Principal Investigator
Co-PIs: Han Bum Lee and Joseph Cimpian
Award Period: January 13, 2025–July 13, 2026
Award Amount: \$50,000
- 2024–2028 **PBS-DIRT Don’t Hurt: How Place-Based Soil Data Interpretation and Research in Texas Can Support Learning and Motivation for Diverse Learners (#2024-77040-43179)**
United States Department of Agriculture: NIFA HSI Education Grant
Role: Principal Investigator
Co-PIs: Rebecca Schroeder and Sara Shields-Menard
Award Period: September 2024–August 2028
Award Amount: \$395,995
- 2022–2023 **Supporting Secondary Students’ Climate Change Learning Using Data Visualizations**
American Psychological Association Division 15: Early Career Research Grant
Role: Principal Investigator
Award Period: July 2022–July 2023
Award Amount: \$6000
- 2020–2021 **Science by the Numbers: Leveraging Mathematical Skills for Science Learning Online**
UTSA COEHD Faculty Research Award
Role: Principal Investigator
Award Period: January 2021–October 2021.
Award Amount: \$5000
- 2020–2023 **Polytechnic for All: STEM Undergraduate Success via an Inclusive Institution (#1832405)**
National Science Foundation: HSI Program
Role: Consultant
PI: Paul Beardsley; Co-PIs: A. Caine, V. Seyranian, V. Bhavsar, J. Perez, A. Shih

Award Period: August 2018–September 2023.
Award Amount: \$1,479,959

2019–2020 **The Influence of Numerical Estimation Skills and Epistemic Cognition in Plausibility Judgments and Conceptual Change**
American Psychological Association Division 15: Dissertation Research Grant
Role: Principal Investigator
Award Period: August 2019–August 2020
Award Amount: \$1000

2017–2020 **The Role of Teachers’ Beliefs and Biases in Mathematics Instruction**
USC Herman & Rasiej Mathematics Initiative
Role: Principal Investigator
Award Period: 2017–2020
Award Amount: \$28,250

Pending Grants

2024 National Science Foundation, Discovery Research PreK-12 (DRK-12), Co-PI, *Empowering Teachers to Address Implicit Bias in Mathematics Teaching and Learning*. (\$3mil)
2024 National Science Foundation, Research Experiences for Teachers in Engineering and Computer Science (RET), Co-PI, *Establishing a Community for Artificial Intelligence and Robotics*. (\$600k)
2024 National Science Foundation, Improving Undergraduate STEM Education (IUSE), PI, *CAREER: Promoting Climate Readiness for Educators in South Texas (CREST)*. (\$650k)

Submitted Grants

2024 UTSA Transdisciplinary Teams (T2) Program, Co-PI, *College Transfer Students and STEM Success: Exploration of Transfer Student Pathways Attending HSIs and Pursuing STEM Careers*. (\$25k)
2023 National Science Foundation, EES - Racial Equity in STEM Ed, Co-PI, *Racial Equity in Mathematics Teaching and Learning*. (\$5.0 million)
2023 National Science Foundation, IUSE Program, Co-PI, *Building an Ecosystem for Broadening Diverse Persistence in STEM Education Through Interdisciplinary GenAI Model*. (\$1.0 million)
2023 National Science Foundation, HSI Program, Co-PI, *Broadening Diverse Persistence in STEM Education Through Interdisciplinary GenAI Model: Implementing Faculty Development and Student Success Outcomes*. (\$1.0 million)
2022 National Science Foundation, AISL Program, PI, *Data Literacy for Math-Science Integration: Studying How Interactive Data Visualizations Support Climate Change Learning*. (\$1.6 million)

- 2021 National Science Foundation, DRK-12 Program, Co-PI, *Language, Literacy and STEM (LA STEM) in High School Contexts (LA STEM HS)*. (\$2.0 million)
- 2020 National Science Foundation, DRK-12 Program, Co-PI, *Advancing Interdisciplinary Math and Science (AIMS) for Secondary English Learners*. (\$3.0 million)

GENERAL AUDIENCE PUBLICATIONS & MEDIA COVERAGE

- 2024 *UTSA Today*. Students will get their hands dirty in real-world STEM research module November 18, 2024.
<https://www.utsa.edu/today/2024/11/story/students-will-get-their-hands-dirty-in-stem-research.html>
- 2024 *The Conversation*. Teachers hold different views on why girls are good at math than they do for boys. October 28, 2024.
<https://theconversation.com/us-math-teachers-view-student-performance-differently-based-on-race-and-gender-241418>
- 2024 *UTSA COEHD News*. UTSA Researchers Thacker and Lee Awarded Spencer Foundation Grant to Study Impact of Race and Gender in STEM Education. October 22, 2024.
<https://education.utsa.edu/news/2024/10/thacker-lee-spencer-grant-award.html>
- 2024 *The Conversation*. Climate change is easier to study when it's presented as a game. September 25, 2024.
<https://theconversation.com/climate-change-is-easier-to-study-when-its-presented-as-a-game-236544>
- 2023 *USA Today*. Math teachers are biased against girls when they think gender equality has been achieved. May 3, 2023.
<https://www.usatoday.com/story/news/nation/2023/05/02/researchers-explain-why-certain-math-teachers-are-biased-against-girls/70175615007/>
- 2023 *The Conversation*. Math teachers hold a bias against girls when the teachers think gender equality has been achieved. May 2, 2023.
<https://theconversation.com/math-teachers-hold-a-bias-against-girls-when-the-teachers-think-gender-equality-has-been-achieved-202921>
- 2022 *The Conversation*. Math teachers in virtual classes tend to view girls and Black students as less capable. November 16, 2022.
<https://theconversation.com/math-teachers-in-virtual-classes-tend-to-view-girls-and-black-students-as-less-capable-193060>
- 2022 *Education Week*. The Surprising Ways Teachers' Biases Play Out in Virtual Classrooms. October 13, 2022.

<https://www.edweek.org/teaching-learning/the-surprising-ways-teachers-biases-play-out-in-virtual-classrooms/2022/10>

- 2022 *KCBS Radio*. San Francisco, Researchers find gender and race biases in online teachers. Anchor: Liz Saint John, 3:20pm PT December 4, 2022.
<https://www.audacy.com/kcbsradio/podcasts/kcbs-on-demand-20757/researchers-find-gender-and-race-biases-in-online-teachers-1541178206>
- 2020 *AAS and ARISE*. Unconscious Bias in the Classroom: How Cultural Stereotypes Affect Teachers' Assessment of Students' Math Abilities. May 27, 2020.
<https://aaas-arise.org/author/ian-thacker/>

RESEARCH PRESENTATIONS

- Thacker, I.**, Schroeder, R., Shields-Menard, S. (April, 2025). *Growth of the Soil: How Personally Relevant Soil Data Can Support Learning and Motivation for Underrepresented Students*. Paper session to be presented at the American Educational Research Association (AERA), Denver, CO.
- Thacker, I.**, Lee, H.B., Cimpian, J.R. (April, 2025). *Gender Disparities in STEM Throughout the Achievement Distribution With an Intersectional Analysis of the Role of Comparative Advantage in STEM*. Roundtable session to be presented at the American Educational Research Association (AERA), Denver, CO.
- Emenaha, U., **Thacker, I.**, & Leihsing, S. (November, 2024). *Are You Aware?: Understanding How Unconscious Bias Impacts Students' Science and Math Outcomes*. National Science Teachers Association (NSTA). New Orleans, LA.
- Thacker, I.**, Martinez, D.,* Lester, K.,* Villalon, S.,* & French, H.* (August, 2024). *How Climate Change Data and Visualizations Can Support Secondary Students' Motivation and Learning*. Poster to be presented to the American Psychological Association (APA), Seattle, WA.
- Thacker, I.**, Schroeder, R., Shields-Menard, S., & Goforth, N.* (August, 2024). *Dirt Don't Hurt: How Relevant Soil Data Can Support Learning and Motivation for Diverse Learners*. Poster to be presented to the American Psychological Association (APA), Seattle, WA.
- Kim, M., Sealy, M., Chow, J., Beymer, P., **Thacker, I.**, Safavian, N., Cheng, K., & Matewos, A. (August, 2024). *Under the Hood of the Editorial Process: A Panel Discussion with Journal Editors and Reviewers*. Panel organized by the Committee on the Development of Early Career Educational Psychologists for the American Psychological Association (APA), Seattle, WA.

- Thacker, I.**, Seyranian, V., Abramzon, N., Madva, A., Duong*, N., Beardsley, P. (2024, April). *Motivation Intervention Improves Calculus & Physics Student Interest, Engagement, Achievement, and Flourishing*. 2024 California State University (CSU) Symposium on Teaching and Learning, California State University, San Bernardino, CA.
- Seyranian, V., Delgadillo*, V., Vaughn*, L., Wieman*, L., **Thacker, I.** (2024, Feb). *Approach Coping during the Covid-19 Lockdown Predicts Higher Flourishing and Post Traumatic Growth One Year Later*. Poster session presented at The Society for Personality and Social Psychology (SPSP), San Diego, CA.
- Thacker, I.**, French, H.*, Lester, K.*, Martinez D.Y.*, Villalon, S.* (April, 2024). *Supporting Secondary Students' Climate Change Learning Using Data Visualizations: A Multi-Method Study*. Paper session presented at the American Educational Research Association (AERA), Philadelphia, PA.
- Emenaha, U., **Thacker, I.**, & Leihsing, S.* (2024). *Using Culturally Responsive Instruction to Address Impact of Implicit Bias in STEM Education*. Roundtable presented at the American Educational Research Association (AERA), Philadelphia, PA.
- Emenaha, U., **Thacker, I.**, & Leihsing, S.* (2024). *Understanding to Unlearn: Implications of Unconscious Bias in STEM Teaching and Learning*. Presentation to be presented at the National Association for Research in Science Teaching (NARST). Denver, CO.
- Thacker, I.** (October, 2023). *Supporting Interdisciplinary Microbiology Education for Diverse Learners: How Place-Based Curriculum Emphasizing Data Literacy in Agricultural Science Can Support Motivation and Learning*. In Symposium: Exposing Students Across All Disciplines to the fields of Data Science, Artificial Intelligence, and Machine Learning. Academic Data Science Alliance (ADSA), San Antonio, TX.
- Schroeder, R., **Thacker, I.**, Shields-Menard, S. (October, 2023). *Supporting Interdisciplinary Microbiology Education for Diverse Learners: How Place-Based Curriculum Emphasizing Data Literacy in Agricultural Science Can Support Motivation and Learning*. In Symposium: Exposing Students Across All Disciplines to the fields of Data Science, Artificial Intelligence, and Machine Learning. Academic Data Science Alliance (ADSA), San Antonio, TX.
- Thacker, I.**, French, H.*, Lester, K.*, Martinez D.Y.*, Villalon, S.* (October, 2023). *Supporting Secondary Students' Climate Change Learning Using Data Visualizations*. Paper presentation to be presented at the Scholarly Consortium for Innovative Psychology in Education (SCIPIE), Portland, OR.
- Thacker, I.**, Villalon, S.*, & French, H.* (August, 2023). *Supporting Postsecondary Students' Collective Climate Change Hope and Agency with Novel Data*. Poster presented to the American Psychological Association (APA), Washington DC.

Graham, M., Kim, M., Hattan, C., Chow, J., Beymer, P., **Thacker, I.**, Duck, K., Safavian, N., Cheng, K. (August, 2023). *Broadening Impact: Reflecting on Broader Impact Statements in the Context of Community Engaged Work*. Panel organized by the Committee on the Development of Early Career Educational Psychologists for the American Psychological Association (APA), Washington DC.

Emenaha, U., **Thacker, I.**, Leihising, S.,* & Brown, T.* (June, 2023) *Bias and the Brain: Exploring STEM Pre-Service Teachers Understanding of the Impact of Implicit Bias on Students' Outcomes*. UTeach STEM Educators Conference, Austin, TX.

Delgadillo, V., Figueroa, M.,* Seyranian, V., & **Thacker, I.** (2023, April). *The Importance of Peer Belonging in Latinx Students' Well-Being*. Accepted presentation at the annual conference of the Western Psychological Association (WPA), Riverside, California.

Thacker, I., Broadway, R.* & French, H.* (April, 2023). Challenging postsecondary students' climate change misconceptions with novel data and data literacy supports. In C. Hattan (Chair) *Grappling with socio-scientific topics during knowledge revision and belief change in varied social contexts*. Symposium presentation to be given at the American Educational Research Association (AERA), Chicago, IL.

Copur-Gencturk, Y., **Thacker, I.**, & Cimpian, J. R. (April, 2023). *Teacher bias in the virtual classroom*. Poster presentation to be given at the American Educational Research Association (AERA), Chicago, IL.

Figueroa, M.,* Seyranian, V., **Thacker, I.** (August, 2022). *Addressing U.S. Health Disparities with Social and Personality Psychology*. Poster presented at the The Society for Personality and Social Psychology (SPSP) Summer Psychology Forum. Minneapolis, MN.

Thacker, I. (August, 2022). *Climate change by the numbers: Leveraging mathematical skills for science learning online*. Poster presented to the American Psychological Association (APA), Minneapolis, MN.

Williams, S.,* **Thacker, I.**, & Broadway, R.* (August, 2022). *Adultification and Academic Motivation: A Multimethods Exploration*. Poster presented to the American Psychological Association (APA), Minneapolis, MN.

Thacker, I., Broadway, R.*, Aldridge, C.*, & Feder, S. (April, 2022). *Estimating climate change numbers: Mental computation strategies that support science learning*. Paper presentation given at the American Educational Research Association (AERA), San Diego, CA.

Thacker, I., Seyranian, V., Nieblas, F.*, Spata, A.*, Madva, A., & Beardsley, P. (April, 2022). *STEM Faculty's support of togetherness during mandated separation: Accommodations,*

caring, crisis management, and powerlessness. Roundtable presented at the American Educational Research Association (AERA), San Diego, CA.

Thacker, I., Seyranian, V., Duong, N., Spata, A. *, Nieblas, F. *, Madva, A., & Beardsley, P. (August, 2021). *Connectedness in isolation: A qualitative study of belonging in STEM during the onset of COVID-19.* Poster presented to the American Psychological Association (APA) virtual conference.

Seyranian, V., **Thacker, I.,** Duong, N., Spata, A. *, Nieblas, F. *, Madva, A., & Beardsley, P. (August, 2021). *How coping affects students' cognitive engagement in online courses during the Covid-19 pandemic.* Poster presented to the American Psychological Association (APA) virtual conference.

Seyranian, V., **Thacker, I.,** Spata*, A., Nieblas*, F., Duong*, N., & Beardsley, P. (2021, July). *Approach Coping is Associated with Higher Flourishing and Post Traumatic Growth during the Covid-19 Lockdown.* Presented at the International Positive Psychology Association (virtual).

Thacker, I., Herrick, I., & Nichols, S (April, 2021). #TeachingDuringAPandemic: An analysis of emotional content of K-12 teachers' tweets during the transition to online learning. In K. R. Kelly (Chair) *Informal learning is not canceled: Research and program implementation during a global pandemic.* Symposium presented at the American Educational Research Association (AERA), Orlando, FL.

Copur-Gencturk, Y., **Thacker, I.,** & Cimpian, J. R. (April, 2021). *Teachers' implicit gender bias and the moderating effects of modern sexism and anxiety.* Spoken presentation presented at the American Educational Research Association (AERA), Orlando, FL.

Thacker, I. (April, 2021). *Numerical estimation skills, epistemic cognition, and climate change: Mathematical skills and dispositions that can support science learning.* Roundtable presented at the American Educational Research Association (AERA), Orlando, FL.

Thacker, I., Seyranian, V., Duong, N., & Beardsley, P. (April, 2021). *Social connectedness in physical isolation: Online teaching practices that support minoritized undergraduate students' belongingness and engagement in STEM.* Poster presented at the American Educational Research Association (AERA), Orlando, FL.

Thacker, I., Sinatra, G. M., & Rasiej, R. (August, 2020). *Mathematics teachers' epistemic cognition and its relationship with teacher instruction: A systematic research synthesis.* Poster presented to the American Psychological Association (APA), Washington DC.

Thacker, I., & Sinatra, M. (April, 2020). *The influence of numerical estimation skills and epistemic cognition in conceptual change.* Spoken presentation at the American Educational Research Association (AERA), San Francisco, CA. (Conference canceled)

Kennedy, A., **Thacker, I.**, & Sinatra G. M. (April, 2020). *Re-living paleontology: Correcting scientific misconceptions with augmented reality in a museum setting*. Spoken presentation at the American Educational Research Association (AERA), San Francisco, CA. (Conference canceled)

Thacker, I., & Giovanni, E.* (October, 2019). *Numeracy, epistemic cognition, and conceptual change*. Poster presented at the Scholarly Consortium for Innovative Psychology in Education (SCIPIE), Savannah, GA. [**Winner of the 2019 SCIPIE graduate poster award**]

Thacker, I. & Rodrigues, J. (August, 2019). *The role of teachers' mathematics self-efficacy and anxiety in fractions learning*. Poster presented to the American Psychological Association (APA), Chicago, IL.

Rodrigues, J., & **Thacker, I.** (August, 2019). *Does multiplication always make bigger? Using refutation text to address a misconception about fraction multiplication*. Poster presented to the American Psychological Association (APA), Chicago, IL.

Thacker, I., Rodrigues, J., & Sinatra, G. M. (July, 2019). *Mathematics Refutation Text: Remediating a Common Fraction Misconception*. Poster presented to the Society for Text and Discourse (ST&D), New York, NY.

Sinatra, G. M., **Thacker, I.**, & Jacobson, N. (July, 2019). Here's hoping it's not just text structure: The importance of emotions in mediating backfire effects of refutation text. In J. Kaakinen (Chair) *The Influence of Emotion on the Processing of Varying Text Sources*. Symposium presented at the annual meeting of the Society for Text and Discourse (ST&D), New York, NY.

Copur-Gencturk, Y., **Thacker, I.**, Quinn, D., & Ebby, C. B. (April, 2019). *Mathematical ability and gender: Beliefs held by elementary and middle school mathematics teachers*. Spoken presentation given to the National Council of Teachers of Mathematics (NCTM), San Diego, California.

Copur-Gencturk, Y., Robinson-Cimpian, J. P., Lubienski, S. T., **Thacker, I.**, & Plowman, D. L. (April, 2019). *Mathematics teachers' bias against the mathematical ability of female, black and hispanic students*. Spoken presentation given to the National Council of Teachers of Mathematics (NCTM), San Diego, California.

Copur-Gencturk, Y., **Thacker, I.**, & Quinn, D. (April, 2019). *K-8 Mathematics teachers' overall and gender-specific beliefs about mathematical aptitude*. Spoken presentation given to the American Educational Research Association (AERA), Toronto, Canada.

Copur-Gencturk, Y. Cimpian, J. P., Lubienski, S. T., **Thacker, I.**, & Plowman, D. L. (April, 2019) *What's in a name? A study of mathematics teachers' implicit bias*. Spoken

presentation given to the American Educational Research Association (AERA), Toronto, Canada.

Copur-Gencturk, Y., Cimpian, J. P., Lubienski, S. T., **Thacker, I.**, Plowman, D. (February, 2019). *Mathematics teachers' implicit biases toward female students and students of color*. Spoken presentation given to the Association of Mathematics Teacher Educators (AMTE), Orlando, FL.

Thacker, I. & Sinatra, G. M. (June, 2018). *When actions do not reflect ideals: Justifications for climate inaction*. Poster presented to the American Psychological Association (APA), San Francisco, CA.

Kennedy, A.U., Jacobson, N., **Thacker, I.**, Sinatra, G. M., Lu, X., Sohn, J. H., Nelson, D., Rosenberg, E. S., & Nye, B. D. (June, 2018). *Re-living paleontology: Using augmented reality to promote engagement and learning*. Poster presented to the meeting of the American Psychological Association (APA), San Francisco, CA.

Thacker, I. & Sinatra, G. S. (April, 2018). *Feel the Heat: An embodied approach to the instruction of the greenhouse effect*. Roundtable presented to the annual meeting of the American Educational Research Association (AERA), New York, USA.

Copur-Gencturk, Y., **Thacker, I.**, & Junk, D. L. (April, 2018). *Do teachers accurately report their learning? A comparison of teacher reports to validated measures*. Spoken presentation given to the annual meeting of the American Educational Research Association (AERA), New York, USA.

Thacker, I., Muis, K. R., Danielson, R. W., Sinatra G., Pekrun, R., Winne, P. H., & Chevrier, M. (August, 2017). *Shifting attitudes on GMFs: The influence of a conceptual change intervention*. Poster presented to the European Association for Research on Learning and Instruction (EARLI), Tampere, Finland.

Danielson, R. W., Sinatra, G. M., **Thacker, I.**, & Jacobson, N.G. (August, 2017). *When strategic graphical interpretation fails: The influence of prior belief and political identity*. Poster presented to the European Association for Research on Learning and Instruction, Tampere (EARLI), Finland.

Kim, A. Y. & **Thacker, I.**, (August, 2017). *A good sine: Seeking and finding math help using online discussion boards*. Poster presented to the American Psychological Association (APA), Washington DC.

Sinatra, G. M., **Thacker, I.**, & Danielson, R. W. (August, 2017). *When strategic graphical interpretation fails: The influence of prior belief and political identity*. Spoken presentation given to the Society for Text and Discourse (ST&D), Philadelphia, USA.

Thacker, I. (April, 2017). *Not too slippery a slope: Grounding the mathematics of slope in students' perceptions of steepness*. Roundtable presented to the annual meeting of the American Educational Research Association (AERA), San Antonio, USA.

Thacker, I., Muis, K. R., Danielson, R. W., Sinatra G., Pekrun, R., Winne, P. H., & Chevrier, M. (April, 2017). *The influence of attitudes and emotions in learning from multiple texts*. Poster presented to the Annual meeting of the American Educational Research Association (AERA), San Antonio, USA.

Corwin, Z., Ochsner A. K., Maruco, T., Danielson R. W., Tichavakunda, A. A., Kolluri, S., **Thacker, I.,** Galan, C., Sinatra, G., & Tierney, W. G. (April, 2017). *A digital approach to increasing college access in california high schools*. Symposium presented to the annual meeting of the American Educational Research Association (AERA), San Antonio, USA.

Thacker, I. (2016) *Fostering student grounding of slope in perceptions of steepness*. Spoken presentation given to the 2016 National Consortium for Instruction and Cognition Annual Meeting (NCIC). Washington DC.

TEACHING

Courses Prepared to Teach

Mathematics Teaching Methods
 Psychological Learning Theories
 Psychology of Human Motivation
 Introductory Statistics
 Multiple Regression
 Survey Research Methods
 Structural Equation Modeling (SEM)
 Hierarchical Linear Modeling (HLM)

Graduate Level Teaching Experience

2022-present **Psychological Learning Theories**
 University of Texas at San Antonio

2022-present **Research Methods and Statistics II**
 University of Texas at San Antonio

2021-present **Research Methods and Statistics I**
 University of Texas at San Antonio

2020-present **Psychology of Human Motivation**
 University of Texas at San Antonio

Undergraduate Level Teaching Experience

- 2009-2010 **Physics for Future Presidents**
University of California, Berkeley
Graduate Student Instructor
- 2004-2005 **General Physics II**
University of Colorado, Boulder
Learning Assistant

High School Teaching Experience

- 2012–2015 **Math and Physics Instructor**
AGBU Manoukian High School, Pasadena, CA
Advanced Physics / Precalculus / Geometry
- 2010–2012 **Math and Physics Instructor**
City Arts Technology High School, San Francisco, CA
Physics / Precalculus / Academic Advisor
- 2009–2012 **Mathematics Instructor**
University of California, Berkeley, CA
Algebra II Instructor. Academic Talent Development Program.
- 2006–2008 **Mathematics Instructor**
Mapleton Early College, Denver, CO
Geometry / Algebra / Math Support / Academic Advisor
- 2005–2006 **Substitute Teacher**
Denver Public Schools, Denver, CO

OTHER RESEARCH ACTIVITIES

- 2020-Present ***NUMBERS Lab, Principal Investigator, University of Texas at San Antonio.***
(Navigating Understanding, Motivation, & Behavior: Educational Research in STEM) Leader of a research group that designs and implements innovative learning experiences to promote and study conceptual change in STEM for diverse learners.
- 2024-Present ***School of Data Science, Faculty Affiliate, University of Texas at San Antonio.***
Member of a collaborative group of faculty dedicated to supporting data science and AI education at UTSA.

- 2023-Present ***Urban Education Institute, Research Faculty Fellow, University of Texas at San Antonio.*** Directed by Dr. Sharon Nichols. Contributed to pursuing and maintaining several research-practice-policy partnerships and supporting funded research projects focused on improving equitable educational and employment outcomes for Hispanic populations in Texas.
- 2023-Present ***Climate Research Interest Group (RIG), Education Research Specialist, University of Texas at San Antonio.*** Directed by Dr. Chris Packham. Member of a collaborative transdisciplinary research group focused on sharing and pursuing climate change related research across several scientific fields. Met bi-weekly to discuss research and research opportunities. Submitted internal proposal for cluster hire and internal grant focused on climate change education.
- 2023-Present ***Generation AI Nexus Consortium, Education Research Specialist, University of Texas at San Antonio.*** Member of an organization focused on design, implementation, and analysis of learning modules intended to integrate Data Science and Artificial Intelligence topics across disciplines at HSIs in South Texas. Submitted several grant proposals.
- 2015–2020 ***Motivated Change Research Lab, Team Member, University of Southern California.*** Directed by Gale Sinatra, Ph.D. Contributed to research examining conceptual and attitude change related to controversial science topics.
- 2008–2010 ***Embodied Design Research Laboratory, Team Member, University of California at Berkeley.*** Directed by Dor Abrahamson, Ph.D. Contributed to design-based research studies investigating the embodied nature of mathematical knowledge.
- 2008–2010 ***Reasoning Research Group, Team Member, University of California at Berkeley.*** Directed by Michael Ranney, Ph.D. Contributed to research studying learning processes when people learn about socio-scientific topics.

PROFESSIONAL AND ACADEMIC SERVICE

National / International

Leadership Roles

- 2022-present *Committee Member, APA Div. 15 Committee on the Development of Early Career Educational Psychologists*
- 2021-2022 *Program Co-Chair, AERA Division C - Section 1c (Mathematics)*

Editorial Board Member

2024–present Learning & Instruction
 2023–present Journal of Educational Psychology
 2023–present Contemporary Educational Psychology
 2022–2024 Frontiers in Psychology - Educational Psychology

Proposal Reviewer

2018–present The Annual Meeting of the American Psychological Association: Div 15
 2019–present The Annual Meeting of the American Educational Research Association
 2019–present The Annual Meeting of the Psychology of Mathematics Education

Ad-Hoc and Guest Reviewer

2023 British Education Research Journal
 2023 Journal of Educational Psychology
 2020–2023 Contemporary Educational Psychology
 2016–2023 Learning and Instruction
 2020–2022 Journal of Experimental Psychology: Applied
 2022 Applied Cognitive Psychology
 2022 Education Sciences
 2021 International Journal of STEM Education
 2021 Bulletin of the American Meteorological Society
 2020–2021 Science Education
 2020–2021 Discourse Processes
 2020–2021 Research in Mathematics Education
 2019 Learning and Individual Differences
 2018 Educational Psychologist
 2017 ZDM (Zentralblatt für Didaktik der Mathematik)

University Service

Department of Educational Psychology Service (UTSA)

2024–present *Hiring Committee*, Psychology, Clinical Psychology, HCAP
 2021–present *Graduate Advisor of Record (GAR)*, MA in Educational Psychology
 2021–present *Committee Member*, Full-time Fixed-Term Promotion Review Committee
 2020–present *Faculty Advisor*, MA Program in Educational Psychology
 2023 *Committee Chair*, Department Merit Review Committee
 2021–2022 *Committee Member*, Department Merit Review Committee
 2020–2021 *Faculty Coordinator*, MA Program in Educational Psychology
 2020–2021 *Hiring Committee*, Educational Psychology, Applied Behavioral Analysis

College of Education and Human Development Service (UTSA)

2023–present *Faculty Champion*, Online Teaching Rep for Dept of Educ. Psychology

2020-present *Committee Member*, COEHD Technology Committee
2022-present *Committee Member*, Secondary Education Certification committee
2020-2024 *Committee Member*, COEHD Scholarship Committee
2023 *Interim Committee Chair*, COEHD Technology Committee

University-Level Service (UTSA)

2023–present UTSA Master’s Student Attrition Study Committee
2022–2023 University Faculty Awards Committee

Rossier School of Education Service (USC)

2016–2020 *Web designer and webmaster*, [Motivated Change Research Laboratory](#)
2016–2020 *Web designer and webmaster*, [Herman & Rasiej Mathematics Initiative](#)
2016–2017 *Board Member*, Student Community of Ph.D.’s in Education (SCoPE)

Community Service

2024 *Invited Speaker*, Generation AI Nexus Overview, New Faculty Academy, University of Texas at San Antonio. August 6, 2024.

2024 *Invited Speaker*, New Faculty Networking Session. New Faculty Academy, University of Texas at San Antonio. August 5, 2024.

2024 *Invited Panelist*, Navigating Grant Writing and Research for Early Career Psychologists, APA Division 15 Early Career Research Grant Committee. April 18, 2025.

2023 *Invited Speaker*, New Faculty Networking Session. New Faculty Academy, University of Texas at San Antonio. August 8, 2023.

2022 *Guest Lecturer*, How to conduct quantitative studies: From data collection to publication, EDUC 867 Advanced Methods in Educational Research, Simon Fraser University (SFU). Instructor: Dr. Tenzin Doleck. November 4, 2022.

2022 *Invited Panelist*, What was your academic journey? Prosem Panel, University of Southern California, Instructor: Dr. Steven Aguillar. October 4, 2022.

2022 *Invited Presenter*, Teaching & Learning Services Teaching Tips, University of Texas at San Antonio, *Managing Big Projects*.

2022 *Invited Speaker*, New Faculty Networking Session. New Faculty Academy, University of Texas at San Antonio. August 3, 2022.

2022 *Workshop Organizer*, College of Education and Human Development, University of Texas at San Antonio, *Introduction to R Workshop*.

2021 *Mentor*, Claire Ellen Weinstein Graduate Student Seminar for Division 15 of APA.

2021 *Co-Presenter*, Estimating climate change numbers: How tolerance for error can support science learning, STEM Education Research Seminar, Department of Mathematics, University of Texas at San Antonio. Lead Presenter: Broadway, R.*

2021 *Presenter*, Numerical Estimation, Epistemic Cognition, & Conceptual Change, STEM Education Research Seminar, Department of Mathematics, University of Texas at San Antonio.

2021 *Guest Presenter*, Social Connectedness in Physical Isolation: Online Teaching Practices that Support Minoritized Undergraduate Students' Belongingness and Engagement in STEM, Center for Excellence in Mathematics and Science Teaching (CEMaST) Brown Bag Seminar, California State Polytechnic University, Pomona.

2021 *Invited Panelist*, How to Land an Academic Position, Educational Psychology Colloquium: Panel Discussion, University of Maryland.

2020 *Invited Guest Presenter*, The Role of Attitudes and Emotions in Conceptual Change, Applications of Learning Theories, McGill University, Instructor: Kristy Robinson.

2020 *Invited Panelist*, Let's talk about R.A.C.E.: Reimagining a Culture of Equality, Science Teachers Association of Texas (STAT), Conference for the Advancement of Science Teaching (CAST).

2020 *Co-Presenter*, Interviews with STEM students and faculty during COVID: Unearthed transcript codes, STEM Education Research Seminar, Department of Mathematics, University of Texas at San Antonio, Lead Presenters: Spata, A.*, Nieblas, F.*

2020 *Presenter*, Implicit Bias in the Mathematics Classroom, STEM Education Research Seminar, Department of Mathematics, University of Texas at San Antonio.

2019 *Invited Guest Presenter*, Making Mathematics Meaningful: Leveraging Informal Knowledge for STEM Learning and Access, PSY 433 Experimental Psychology, California State Polytechnic University, Pomona.

2018 *Invited Guest Presenter*, The Role of Emotion, Attitudes, and Beliefs in Science and Mathematics Learning, PSY 433 Experimental Psychology, California State Polytechnic University, Pomona.

2017 *Newsletter Editor*, National Consortium for Instruction and Cognition.

PROFESSIONAL AFFILIATIONS

American Education Research Association (AERA)
American Psychological Association (APA)
European Association for Research on Learning and Instruction (EARLI)
National Consortium for Instruction and Cognition (NCIC)
National Council of Teachers of Mathematics (NCTM)
Psychology of Mathematics Education - North American Chapter (PME-NA)
Scholarly Consortium for Innovative Psychology in Education (SCIPIE)
Society for Text and Discourse (ST&D)