Samuel J. Bullard

✉ bulla049@umn.edu

iD 0000-0003-4905-9305

R^G Samuel-Bullard

🐦 @SamBullard049

Education

Ph.D. Educational Psychology   Expected May 2026

Psychological Foundations of Education

University of Minnesota – Twin Cities

Advisor: Keisha Varma (Ph.D.)

M.A. Educational Psychology   April 2024

Psychological Foundations of Education

University of Minnesota – Twin Cities

Advisor: Keisha Varma (Ph.D.)

B.A. Developmental Psychology   May 2019

University of Minnesota – Twin Cities

Research Positions

Graduate Research Assistant   2020 – Present

Department of Educational Psychology

University of Minnesota

Research Professional I   2020 – 2020

Department of Educational Psychology

University of Minnesota

Undergraduate Research Assistant   2018 – 2019

Department of Educational Psychology

University of Minnesota

Scholarly Works

Peer Reviewed Articles

[1] Filter, K. J., Ford, A. L. B., **Bullard, S. J.**, Cook, C. R., Sowle, C. A., Johnson, L. D., Kloos, E., & Dupuis, D. (2022). Distilling Check-In/Check-Out into its core practice elements through an expert consensus process. *School Mental Health*, *14*(3), 695–708. https://doi.org/10.1007/s12310-021-09495-x

[2] Filter, K. J., Johnson, L. D., Ford, A. L. B., Sowle, C. A., **Bullard, S. J.**, Cook, C. R., Kloos, E., & Dupuis, D. (2022). An expert consensus process to distill Tier 1 PBIS into core practice elements essential to frontline implementation. *Education and Treatment of Children*, *45*(1), 51–67. https://doi.org/10.1007/s43494-021-00066-y

[3] **Bullard, S. J.** (2019). Reflections on community-engaged research: Learning to practice what we preach. *Undergraduate Journal of Service Learning & Community-Based Research*, *8*, 1–9. https://doi.org/10.56421/ujslcbr.v8i0.5

Manuscripts in Preparation / Under Review

[4] **Bullard, S. J.**, Peczuh, M., & Varma, K. (2025). Leveraging Familial Assets in STEM Education: A Systematic Review. *Review of Research in Education*, *49*(1). Manuscript under review.

[5] **Bullard, S. J.**, & Varma, K. (2024). Cognitive processing language in communities of inquiry: An examination of cognitive presence, instruction modality, and academic performance of online learners. Manuscript in preparation.

Conference Proceedings

[1] Varma, K., & **Bullard, S. J.** (2023). Leveraging CSCL to support parent involvement and increase student learning outcomes in communities that are historically excluded from STEM. In C. Damșa, M. Borge, E. Koh, & M. Worsley (Eds.), *Proceedings of the 16th International Conference on Computer-Supported Collaborative Learning* (pp. 301–304). International Society of the Learning Sciences. https://repository.isls.org//handle/1/9220

[2] **Bullard, S. J.**, & Varma, K. (2023). Understanding the influence of stereotypical perceptions of scientists on middle school students' science achievement. In E. Blikstein, J. Van Aalst, R. Kizito, & K. Brennan (Eds.), *Proceedings of the 17th International*

Conference of the Learning Sciences (pp. 2157–2158). International Society of the Learning Sciences. https://doi.org/10.22318/icls2023.264287

[3] **Bullard, S. J.**, & Varma, K. (2022). Cognitive processing in online communities of inquiry. In A. Weinberger, W. Chen, D. Hernández-Leo, & B. Chen (Eds.), *Proceedings of the 15th International Conference on Computer-Supported Collaborative Learning* (pp. 467–470). International Society of the Learning Sciences. https://doi.org/10.22318/cscl2022.467

[4] **Bullard, S. J.** (2022, October). *Teacher perspectives on parental involvement in middle school science learning*. 7th Annual Learning Sciences Graduate Student Conference, University of Illinois at Urbana-Champaign.

[5] **Bullard, S. J.** (2021, November). *Cognitive presence and processing in online discussion forums*. 6th Annual Learning Sciences Graduate Student Conference, University of Illinois at Urbana-Champaign.

[6] Varma, K., Gullickson, E. C., Loiselle, T., Rohloff, C., Lopez, I., **Bullard, S.**, Simpson, L., & Abdi, A. (2020). Creating equitable connected learning experiences for teachers, students, and parents. In M. Gresalfi & I. S. Horn (Eds.), *The Interdisciplinarity of the Learning Sciences* (Vol. 4, pp. 2305–2308). International Society of the Learning Sciences (ISLS). https://doi.org/10.22318/icls2020.2305

[7] **Bullard, S. J.** (2020, November). *Language inquiry into middle school students' perceptions of science.* 5th Annual Learning Sciences Graduate Student Conference, University of Wisconsin, Madison.

Other Conference Presentations

[8] **Bullard, S. J.** (2024, June). *Developing a social justice biomedical engineering curriculum unit*. [Abstract]. 2024 Annual Conference of the American Society for Engineering Education, Portland, Oregon.

[9] **Bullard, S. J.**, & Varma, K. (2024, March). *A design-based research approach to fostering middle schoolers' socioscientific argumentation skills.* [Roundtable session]. 97th International Conference for the National Association for Research in Science Teaching (NARST 2024). Denver, CO.

[10] **Bullard, S. J.**, & Varma, K. (2022, April). *Cognitive processing in online discussion-based communities of inquiry*. [Short paper]. 2022 AERA Annual Meeting, San Diego, CA.

[11] Varma, K., Gullickson, E. C., Loiselle, T., Abdi, A., Wurth, C. T., **Bullard, S. J.**, & Park, J. (2019, March). *An examination of parent and adolescent roles in a collaborative social media learning environment*. [Poster]. International Convention of Psychological Science, Paris, France.

Invited Talks & Non-Refereed Presentations

[1] **Bullard, S. J.** (2024, March). *Leveraging argumentative discourse to promote middle school learners' understanding of bio-engineering concepts and applications.* [Poster]. CEHD Graduate Student Research Day 2024, Minneapolis, MN.

[2] Varma, K., Burger, A., Thompson, S., Ristani, G., Gangwar, L., & **Bullard, S. J.** (2024, February). Advanced technologies for the preservation of biological systems. [Poster]. 2024 ERC Conference for EWD, DCI, & SLC Leaders, Rosemont, IL.

[3] Varma, K., & **Bullard, S. J.** (2023, March). *Amplifying parent voices to support equitable science*. [Invited talk]. Spring 2023 SESAME Research Colloquium Series, at the University of California, Berkeley.

[4] **Bullard, S. J.** (2023a, November). Using language features to predict agreement among members of an online community /r/ChangeMyView. [Poster]. Psych Foundations Brown-Bag Research Poster Session, University of Minnesota, Twin Cities.

[5] **Bullard, S. J.** (2023b, November). Leveraging argumentative discourse to promote middle school learners' understanding of bio-engineering concepts and applications. [Poster]. ATP-Bio Y3 NSF Site Visit, Minneapolis, MN.

Academic Service & Affiliations

Leadership

Student Representative	2023 – Present

Reviewing

American Education Research Association	2020 – Present
International Society of the Learning Sciences	2020 – Present
Learning Sciences Graduate Student Association	2020 – Present

Research Labs

Scientific Thinking and Reasoning Lab	2020 – Present

Learning Informatics Lab   2020 – Present

Professional Societies
National Association of Research in Science Teaching   2024 – Present
Association for Multicultural Affairs in Organ Transplantation   2023 – Present
International Society of the Learning Sciences   2021 – Present
Learning Sciences Graduate Student Association   2020 – Present
American Education Research Association   2020 – Present

Funded Research Projects

Advanced Technologies for Preservation of Biological Systems (ATP-Bio) 2023 – Present
NSF ERC Award #1941543
Principal Investigator(s): John Bischof, UMN

- Advance bioengineering solutions for the storage/transportation of donor organs and tissue; build a more robust and diverse STEM workforce; promote and deliver equitable and inclusive STEM education.

Partnership Pathways to Improve the Professional Preparation of Low-Income Students in STEM in Minnesota (PRISM) 2021 – 2023
S-NSF Award #2030638
Principal Investigator(s): Rebekah Dupont, Augsburg University

- Increase the recruitment, retention, and success of low-income, high-achieving undergraduates in STEM via financial assistance and faculty mentoring.

Fostering Equitable Science through Parental Involvement and Technology (ESPRIT) 2018 – 2022
NSF Award #1657088
Principle Investigator(s): Keisha Varma, UMN

- Leverage technology-rich social learning environments to (a) engage middle school science teachers, students, and families in science learning (b) highlight STEM occupations through a culturally responsive lens, and; (c) mitigate barriers and promote the achievement of URM students in their science classes.

Development and Refinement of the Planned Action and Commitment Tool (PACT) for Strategic Measurement of Implementer Commitment 2020 – 2021
IES Award #R305A190182
Principal Investigator(s): LeAnne Johnson, UMN

- Development of the *Planned Action and Commitment Tool* to assess barriers and supports for the implementation of practices in schools that support the social, emotional, and behavioral needs of students.

Project Engage: Developing a Cloud-Based Measurement System for Data-Informed Implementation of Practices Promoting Children's Active Engagement   2020 – 2020
IES Award #R324A170032
Principle Investigator(s): LeAnne Johnson, UMN

- Development of a technology-enhanced observation system to assess young children's active engagement behaviors and support essential provider interaction practices.

Technical Training

Introduction to NVivo Workshop   Fall 2023
Leadership: Michael J. Beckstrand

Advanced Foundations of R (AFAR)   Summer 2021
Leadership: Ethan Brown and Jeffrey K. Bye

Foundations of R (FAR)   Summer 2021
Leadership: Ethan Brown and Jeffrey K. Bye