# Amy Rae Johnson

Updated: July 12, 2025

The University of Texas at Austin
College of Education
Department of Curriculum and Instruction
1912 Speedway
Austin, TX 78712-1293

arjohnson@utexas.edu
(571) 214-5388


## EDUCATION

**Ph.D., STEM Education, The University of Texas at Austin** (expected) May 2026
Advisor: Dr. Carlos Nicolas Gómez Marchant

**M.A.T, Elementary Education, James Madison University** May 2013

**B.S., Interdisciplinary Liberal Studies, James Madison University** May 2012
Elementary Education Minor

## FELLOWSHIP, HONORS, AND AWARDS

**TXNS Continuing Fellowship ($2500)** Fall 2025
The University of Texas at Austin, Texas New Scholars fund

**RCML Memorial Scholarship ($750)** Spring 2024
Research Council on Mathematics Teaching Annual Conference

**Faculty/Student Collaborative Travel Award ($700)** Spring 2023
The University of Texas at Austin, Department of Curriculum & Instruction

**Faculty/Student Collaborative Travel Award ($500)** Fall 2022
The University of Texas at Austin, Department of Curriculum & Instruction

## RESEARCH

### Peer Reviewed Publications

Sánchez Gutiérrez, G., Gómez Marchant, C. N., Aguilar, A., **Johnson, A. R.** (under review) Languaging practices of the Rodriguez family during a mathematics activity. Paper submitted to *School Science and Mathematics*.

Yeh, C., Rigby, L., Gomez Zwiep, S., & **Johnson, A. R.** (under review). Variability in action: How data shapes children's understanding of the natural world. Paper submitted to *Science and Children.*

Gómez Marchant, C. N., Sánchez Gutiérrez, G., **Johnson, A. R.**, Aguilar, A. R., Méndez Pérez, K, & Baniahmadi, M. (2024). The Rodrigo& Luz chronicles: A composite counterstory. *Journal Committed to Social Change on Race and Ethnicity, 10*(2), 45–64. https://doi.org/10.15763/issn.2642-2387.2024.10.2.44-64

Gómez Marchant, C. N., Aguilar, A. R., **Johnson, A. R**., Sánchez Gutiérrez, G., & Baniahmadi, M. (2024). A magical moment counting tires: A counterstory about missed opportunities. *Teaching for Excellence and Equity in Mathematics Education*, *15*(1), 31–34.

Méndez Pérez, K., Aguilar, A. R., **Johnson, A. R.,** Burgess, C., & Gómez Marchant, C. N. (In press). Centering humanity within ethnographic research: A book review of Black boys' lived and everyday experiences in STEM. *Journal of Urban Mathematics Education.*

**Peer Reviewed Conference Proceedings**

**Johnson, A. R.,** Burgess, C. F., Gómez Marchant, C. N., Sánchez Gutiérrez, G., Cantu, E., Méndez Pérez, K., & Aguilar, A. R. (2023, March). Mathematics and identity: Lived experiences of prospective teachers of color. In G. Cobbs & D. Kombe (Eds.), *Proceedings of the 50th Annual Meeting of the Research Council on Mathematics Learning* (pp. 99-109). Las Vegas, NV.

Sánchez Gutiérrez, G., Jones, S. R., **Johnson, A. R.**, Méndez Pérez, K., Burgess, C. F., Aguilar, A., & Gomez Marchant, C. N. (2022, March). Parents as facilitators: Utilization of bilingual language practices during mathematical problem solving. In S. Bateiha & G. Cobbs (Eds.), *Proceedings of the 49th Annual Meeting of the Research Council on Mathematics Learning* (pp. 28–34). Grapevine, TX.

**Published Curriculum**

OpenSciEd. (2025). Unit K.2 Weather.
https://openscied.org/instructional-materials/k-2-weather/

OpenSciEd. (2025). Unit 1.2 Waves: Sound.
https://openscied.org/instructional-materials/1-2-waves-sound/

OpenSciEd. (2024). Unit 1.1 Waves: Light.
https://openscied.org/instructional-materials/1-1-waves-light/

OpenSciEd. (2024). Unit 2.1 Earth: Land Changing Shape.
https://openscied.org/instructional-materials/2-1-earth-land-change/

OpenSciEd. (2024). Unit 3.1 Forces and Interactions.
https://openscied.org/instructional-materials/3-1-forces-interactions/

**Peer Reviewed Presentations**

Yeh, C., **Johnson, A. R.,** & Rigby, L. (2025, March 25). *Design considerations in integrating mathematics for scientific sensemaking in elementary science.* [Symposium paper]. 2025 National Association of Research in Science Teaching Annual International Conference, Washington, D.C., United States.

**Johnson, A. R**., Gómez Marchant, C. N., Aguilar, A., Love, M., Benitez, A., & Cortez, J. (2025, March 6-8). *Recontextualizing play in the mathematics classroom: A framework of playful mathematics.* Presented at the annual meeting of the Research Council on Mathematics Teaching, College Station, TX.

**Johnson, A. R.,** Aguilar, A., Gómez Marchant, C. N., & Sánchez Gutiérrez, G. (2024, June 17-19). *Inclusive and joyful play through storytelling and mathematics game design.* Presented at the NCTE-NCTM Joint Conference, New Orleans, LA.

**Johnson, A. R.,** Aguilar, A., Gómez Marchant, C. N., Sánchez Gutiérrez, G., Cantu, E., & Baniahmadi, M. (2024, February 29-March 2). *Accessible and inclusive play in the elementary classroom.* Presented at the annual meeting of the Research Council on Mathematics Teaching, Columbia, SC.

Burgess, C., & **Johnson, A. R.** (2024, February 8-10) *Mathematics and identity: Lived experiences of a Black woman prospective teacher.* Presented at the annual meeting of The Association of Mathematics Teacher Educators, Orlando, FL.

**Johnson, A. R**., Celedón-Pattichis, S., Pattichis, M. S., Cantú, E., Lee, H. H., Tovar, I, & LópezLeiva, C. (2023, April 13-16). *Can I be a mathematician and computer programmer? Identity-building through moments of playful talk*. Poster presented at the Annual Meeting of the American Educational Research Association. Chicago, Illinois.

Lee, H. H., Celedón-Pattichis, S., Pattichis, M. S., **Johnson, A. R.,** Cantú, E., Tovar, I., & LópezLeiva, C. A. (2023, April 13-16). *Knowing and enjoying: Expanding Latinx students' experiences with an integrated computer programming and mathematics curriculum.* Paper presented at the Annual Meeting of the American Educational Research Association. Chicago, Illinois.

Celedón-Pattichis, S., Tovar, I. O., Cantú, E., **Johnson, A. R.,** Lee, H. H., LópezLeiva, C. A., & Pattichis, M. S. (2023, February). *Middle school bilinguals' use of translanguaging to engage with algebraic thinking and computer programming*. Paper presented at the annual meeting of the National Association for Bilingual Education Research and Evaluation SIG**.** Portland, Oregon.

Aguilar, A. R., Gómez Marchant, C. N., Jones, S. R., Sánchez Gutiérrez, G., **Johnson, A. R.,** Burgess, C., Breidenich, S., & Méndez Pérez, K. (2022, November). *Surveillance and work in the mathematics classroom.* Presented at the 44th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Nashville, TN.

Gómez Marchant, C. N., Aguilar, A. R., Jones, S. R., Sánchez Gutiérrez, G., Leyva, L., Chavez, R., Zavala, M. R., **Johnson, A. R.,** & Burgess, C. (2022, November). *Latine studies in mathematics education: Working group exploring the borderlands of Latine learners.* Presented at the 44th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Nashville, TN.

**Invited Guest Lecturer**

**Johnson, A. R.** (2022, October). *Multidigit multiplication and division*. EDC 370E: Elementary Mathematics Methods. University of Texas at Austin. Austin, Texas.

**Research Experience**

**Graduate Research Assistant, The University of Texas at Austin** August 2021-present
Research Supervisor: Dr. Gómez Marchant
Project Title: *Mi Raza, Mi Lengua, Mis Matematicas: Latinx Students' Counter-stories as Doers-of-Mathematics (Mi3)*
Funding Agency: National Science Foundation (Award #1941952)

**Graduate Research Assistant, The University of Texas at Austin** August 2023-present
Research Supervisor: Dr. Cathery Yeh
Project Title: *Elementary OpenSciEd Project*

**Research Collaborator, The University of Texas at Austin** May 2022-May 2024
Research Supervisor: Dr. Celedón-Pattichis
Project Title: *Advancing Out-of-School Learning in Mathematics and Engineering (AOLME)*
Funding Agency: National Science Foundation (Award #1613637)

**UNIVERSITY LEVEL TEACHING EXPERIENCE**

**Instructor of Record, University of Texas at Austin** January 2024-May 2024
Elementary Mathematics Methods (EDC 370E)

**Instructor of Record, University of Texas at Austin** January 2023-May 2023
Elementary Mathematics Methods (EDC 370E)

**Teaching Assistant, University of Texas at Austin** January 2022-May 2022
Elementary Mathematics Methods (EDC 370E)

**K-12 TEACHING EXPERIENCE**

**Alta Vista School, San Francisco, CA** June 2019-June 2021
Fourth-grade mathematics teacher

**Alta Vista School, San Francisco, CA** August 2015 -June 2019

Second-grade mathematics and science teacher

**Westgate Elementary School, Manassas, VA** August 2013-June 2015
First-grade teacher

## PROFESSIONAL DEVELOPMENT LEADERSHIP

**Johnson, A. R.,** Burgess, C., & Breidenich, S. (2022, November). Mathematics and Teacher Identity. Presented at The University of Texas at Austin. Austin, TX.

## PROFESSIONAL ASSOCIATIONS

American Educational Research Association (AERA)
Association of Mathematics Teacher Educators (AMTE)
National Association for Bilingual Education (NABE)
National Council of Teachers of Mathematics (NCTM)
Research Council on Mathematics Learning (RCML)