

# ALEXIS RILEY

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## **RESEARCH INTERESTS**

*Science Teacher Education, Diversity, Equity & Social Justice, Urban and Multicultural Education*

- Social justice (science teaching as achievement, access, empowerment, opportunity)
- Critical race theory, Womanist pedagogy, Culturally Relevant Pedagogy, Intersectionality
- Research methods (qualitative, narrative)
- Curriculum development (integration of science with project-based teaching, and student activism)

## **EDUCATION**

Teachers College, Columbia University, New York, NY

Doctor of Philosophy, Science Education, Mathematics, Science & Technology

Completed: Fall 2021

Title of Dissertation: Lifting as we climb: Womanist pedagogy and anti-racist practices as discussed by Black women science teachers

Advisor: Dr. Felicia Moore Mensah

Teachers College, Columbia University, New York, NY

Master of Philosophy, Science Education, Mathematics, Science & Technology (June 2021)

Fordham University, New York, NY

Master's in Science of Teaching (MS.Ed.), 7 – 12 Secondary History (June 2013)

University of California, Santa Barbara, Santa Barbara, CA

Bachelor of Arts (B.A.), Sociology (June 2011)

## **FACULTY EXPERIENCE**

**New York University-Steinhardt**

September 2023 - Current

**Department of Teaching & Learning**

- Assistant Professor, Science Education

**California State University-Los Angeles, CA**

August 2022 – August 2023

**Department of Liberal Studies**

- Assistant Professor, Culturally Relevant Science Pedagogy

**Barnard College, New York, NY**

Teaching Faculty, *Arts & Humanities in the City*

January 2020 – June 2021

Guiding Professor: Dr. Maria Maulucci Rivera

- Adjunct Associate Professor (Fall 2020)
- Teacher's Assistant (Spring 2020 & Spring 2021)

**Relay Graduate School of Education**, New York, NY

Adjunct Associate Professor, *Secondary Science Methods Course* August 2016 – July 2020

- Prepared novice teachers for the edTPA certification as I modeled inquiry-based science lessons, facilitated discussions about the NGSS standards and gave feedback on lessons and units as students engaged in NGSS-aligned curriculum redesign.
- Provide four-hour sessions and asynchronous online modules to in-service teachers
- Share and model exemplary examples and resources for adapting provided curriculum to meet NGSS standards
- Action plan with first-year science teachers to help them facilitate a student-centered inquiry-based the following year of teaching.

## **SCHOLARSHIP**

### **Peer-Reviewed Publications**

**Riley, A. D., & Mensah, F. M.** (2024). “Things your history teacher won't teach you: Science edition”: Black women science teachers as anti-racist teachers. *Journal of Research in Science Teaching*, 61(4), 809-840.

**Riley, A.** (2023). Womanist Pedagogy and Black Women’s Science Teaching. *Race, Ethnicity, and Education*. DOI: 10.1080/13613324.2023.2210512

**Riley, A., & Mensah, F.M.** (2023). “My curriculum has no soul!”: A case study of the experiences of Black women science teachers working at charter schools. *Journal of Science Teacher Education*

**Riley, A.** (2021). Science in the city: Culturally relevant STEM education book review. *The Journal of Education*.

Wright, C., & **Riley, A.** (2021). Mitigating the need for resiliency for Black girls: Reimagining the cultural brokering through a lens of science as white property. *Cultural Studies of Science Education*, 1-6. <https://doi.org/10.1007/s11422-020-10005-9>

**Riley, A.** (2021). Exploring the philosophy and need of Black women science teachers. *Academia Letters*, Article 1769. <https://doi.org/10.20935/AL1769>.

**Riley, A.** (2020). Lifting as we climb: Re-centering Black women science teachers. *ASTE Newsletter*, 54(4).

### **Articles in Review**

**Riley, A.** (accept with major revisions). Elder Black women science teachers (re)member: An examination of science identity formation for curious young Black girls.

**Riley, A. & Mensah, F.M.** (under review). Conceptualizing historically relevant science pedagogy.

**Riley, A.**, Mensah, F.M., Makori, H. (under review). Understanding Racism as Endemic in Chemistry Education: CRT and Classroom Practice Book Chapter.

Makori, H., Mensah, F.M., & **Riley, A.** (revise and resubmit). “I Can’t Breathe!” Social Justice Science Teaching for Mr. George Floyd: CRT and Classroom Practice Book Chapter.

Dunmeyer A., Howard, S., **Riley, A.**, Gordon, W. (revise and resubmit). “Rare gems”: Black women interrogating identity, content, research, and praxis in secondary science and English education. *Freedom teachers, freedom dreamers: Black girls’ and womxn’s embodiments of healing and liberation.*

### **Peer-Reviewed Book Chapter**

**Riley, A.**, & Mensah, F.M. (2023). Joseph has no money for food. In S. Jeong, L. Bryan, D. Tippins, & C. Sexton. (Eds.). Navigating the challenges of elementary science teaching and learning: Using case-based pedagogy to understand dilemmas of practice. Cham, Switzerland: Springer Nature.

**Riley, A.** (2016). A family and a dream: A journey from south central to life beyond. In D.Y. Ford, J.L. Davis, M.T. Scott, M. T., & Y. Sealey-Ruiz (Eds.). *Gumbo for the soul: Liberating and stories to inspire females of color* (pp. 257-260). IAP Publishing.

### **Funding**

**Riley, A.** (2024). Transformative PD: Impact of I AM STEM Girls Camp on Black women teachers. Office of Vice Provost of Research - Research Development Rapid Response Technical Assistance Grants. Awarded: \$1,500.

**Riley, A.** (2024). Sista Circles and Black Women Science Teachers: Developing Historically Relevant Science Pedagogy. IHDSC Seed Award. Awarded: \$14,530.

**Riley, A.** (2024). (Re)membering Science: Reclaiming Black Science Epistemologies Through Archival Endarkened Storywork. NYU Steinhardt Challenge Grant. Awarded: \$6,500.

**Riley, A.** (2024). CAREER: The Sistas Imagining Science Project: Supporting Black Women Science Teachers’ Well Being. National Science Foundation. Requested: \$1,130,738.

### **Invited Research Talks**

**Riley, A.** (2024, July). NARST Early Career Institute. Virtual. Panelist.

**Riley, A.** (2024, April). AERA Social Justice Council Session. American Educational Research Association. Philadelphia, PA. Participant.

**Riley, A.** (2024, January). Historically Relevant Science Pedagogy: Think Tank. Mind Brain Education Collaboratory.

**Riley, A., & Mensah, F.M.** (2023, November). “My curriculum has no soul!”: A case study of the experiences of Black women science teachers working at charter schools. NARST Call to Action and Reflection Retreat, National Association Research for Science Teaching. Workshop Leader.

**Riley, A.** (2022, November). NARST Call to Action and Reflection Retreat, National Association Research for Science Teaching. Panelist.

### **Conference Presentations**

**Riley, A.** (2023, March). An Argument for Historically Relevant Science Pedagogy: Learning from Black Women Science Teachers and their Anti-Racist Teaching. AERA Annual International Conference, Chicago, Illinois.

**Riley, A.** (2023, March). But That’s Just Good Science Teaching!: An Argument for Historically Relevant Science Pedagogy. National Association for Research in Science Teaching, Chicago, Illinois.

**Riley, A. & Howell, L.** (2022, October). Lifting as we climb: Womanist Pedagogy and Anti-racist Teaching as Discussed by Black Women Science Teachers. Critical Conversation in Teacher Education and Development (CITED), Virtual.

**Riley, A.** (2022, April). Making meaning from the past: An examination of pedagogical practices of elder Black women science teachers. AERA Annual International Conference, San Diego, California.

**Riley, A., & Mensah, F.M.** (2022, March). Black women science teachers and Anti-racist Teaching: An argument for Historically Relevant Science Pedagogy. National Association for Research in Science Teaching, Virtual.

**Riley, A.** (2022, January). Womanist pedagogy and Black women science teaching. ASTE Annual International Conference, Virtual.

**Riley, A.** (2021, October). From whence we came: Emerging findings. Critical Race Research in K-12 Schools & Communities -- 2021 Doctoral Student Research Symposium. Teacher’s College, Columbia University

**Riley, A.** (2020, January). Lifting as we climb: A phenomenological study about the experiences of Black women science teachers. ASTE Annual International Conference, San Antonio, TX.

**Riley, A., & Mensah, F.M.** (2019, March). Developing racial literacy in the science classroom: Questions of race, racism & power. Poster presented at the NARST Annual International Conference. Baltimore, MD.

**Riley, A.** (2019, January). The great Black hope: An examination of the use of Black bodies in a “post-segregation/new integration” educational climate. ASTE International Conference, Savannah, GA.

**Riley, A.** (2018, June). Racially relevant science education. STEMTeachersNYC Annual Conference. New York, NY.

### **Media Mentions**

How Black female teachers enrich science with anti-racism. (November 8, 2023). Futurity News. <https://www.futurity.org/anti-racist-science-teaching-2996762-2/>

Supporting Black women in STEM. (February 8, 2021). Barnard College News. <https://barnard.edu/news/supporting-black-women-stem-careers>

### **PROFESSIONAL MEMBERSHIPS**

American Educational Research Association (AERA)

American Modeling Teachers Association (AMTA)

Association for Science Teacher Education (ASTE)

National Association for Research in Science Teaching (NARST)

### **RELEVANT TEACHING EXPERIENCE**

#### **Graduate Teaching Experience**

**New York University - Steinhardt**, New York, NY Sept 2023 - Current

Lead Course Develop & Instructor

- Elementary Science Methods Course
- Elementary Environmental Science Methods Course - Teaching Residency
- Secondary Science Methods Course

**Relay Graduate School of Education**, New York, NY

Curriculum Consultant, Elementary Science Methods Course Sept 2021 – July 2021

- Design 3 module plans (asynchronous + synchronous strategy) about (1) inquiry for equity, (2) exploration into scientific inquiry, and (3) addressing preconceptions using inquiry.
- Develop student-facing materials for the modules.

**Teacher’s College, Columbia University**, New York, NY

Course Assistant, *Understanding Race and Education* Sept 2021 – Dec 2021

- Communicate logistics for students in an asynchronous course
- Respond to discussion board responses and synthesize big ideas for the presiding professor
- Communicate deadlines and logistics with presiding faculty

**Teacher’s College, Columbia University**, New York, NY

Course Assistant, *Introduction to Qualitative Research* Sept 2021 – Dec 2021

- Support small group of scholars with the development of their pilot study

**Teacher's College, Columbia University**, New York, NY

Teacher's Assistant, *Critical Voices in Teacher Education* January 2021 – Dec 2021

- Observed and participated in Dr. Felicia Mensah, my dissertation advisor's course
- Lead one session of the course – this included critical reflection on accountability and assessment in the K-12 and teacher preparation setting.

## College Teaching Experience

**California State University - Los Angeles**

August 2022 - August 2023

Assistant Professor, Liberal Studies

- Liberal Studies Senior Research Project
- Race, Class, and Gender in Education

**Barnard College**, New York, NY

Teaching Faculty, *Arts & Humanities in the City*

January 2020 – June 2021

Guiding Professor: Dr. Maria Maulucci Rivera

- Adjunct Associate Professor (Fall 2020)
- Teacher's Assistant (Spring 2020 & Spring 2021)

## HIGH SCHOOL TEACHING EXPERIENCE (10 YEARS)

**Achievement First Charter Network**, New York, Connecticut, and Rhode Island

Associate Director of Science Achievement, 5 – 12

July 2019 - Sept 2023

- Physics & Chemistry Curriculum and Instructional Specialist
- Facilitate content-specific and pedagogical professional development
- Weekly classroom observation with coaching
- Develop NGSS-aligned Physics and Chemistry daily remote and in-person curriculum resources
- Provide data analysis on shared assessments with coaching
- Develop culturally relevant performance assessments for Physics and Chemistry

**Achievement First Brooklyn High School**, Brooklyn, NY

Associate Academic Science Dean of Instruction

August 2018 – July 2019

- Facilitate weekly science department meetings
- Provide instructional coaching for the Physics, Chemistry, and Biology departments

Physics Teacher

July 2015 – July 2019

- Summer Physics PD Facilitator

**Future Leaders Institute Charter School**, Harlem, NY

Science Teacher, 6 – 8

August 2011 – July 2015

- Pioneered school's year science research presentations (Spring 2012)
- Pioneered partnership with City Gardens of NY

## Service

New York University - Steinhardt Teaching & Learning Sept 2023 - Current

- Undergraduate Honors Program Mentor
- Math Education Faculty Hiring Committee
- Anti-Racism Intersectional Justice Committee
- Educational Policy Group Faculty Affiliate

Cultural Studies of Science Education Dec 2023 - Current

- Manuscript Reviewer

National Science Foundation January 2024

- Directorate for STEM Education

Equity & Excellence in Education July 2023 - Current

- Manuscript Reviewer

Journal of Research in Science Teaching Feb 2023 - Current

- Manuscript Reviewer

Ethnic Studies Pedagogies Journal – Editorial Board July 2022 - July 2023

Institute for Teachers of Color Committed to Racial Justice (ITOC) Fellow (June 2022- June 2023)

Association of Science Teacher Education (ASTE) December 2020 – May 2023

- Member of the Board of Directors
- Graduate Student-at-Large (elected position)
- Co-Chair of Membership and Participation Committee

## Professional Participation

### **Library of Congress Teaching with Primary Sources Eastern Region Program**

- Centering Blackness in Teacher Education through the use of African-American Digital Archives Institute. 2024, June. Fellow.

### **American Educational Research Association**

- Early Career Faculty Pre-Conference Seminar, Division K. 2024, April. Participant.

### **NYU Center for Faculty Advancement**

- NYU Early Career Faculty Institute. 2023, October. Member.

## HONORS AND AWARDS

2022 Jhumki Basu Scholars Program, Ethics & Equity Committee, National Association for Research in Science Teaching

2019 Jhumki Basu Scholars Program, Ethics & Equity Committee, National Association for Research in Science Teaching