# JESSICA FORRESTER, PH.D.

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#### **EDUCATION**

# University of Minnesota, College of Education and Human Development

Minneapolis, Minnesota

August 2022

Doctor of Philosophy, STEM Education – Mathematics Focus Equity and Diversity Certification

Dissertation Title: Equity, Joy, and Genius: Creating Culturally Responsive Mathematics Inspired by the North

Minneapolis Community

Advisor/Chair: Dr. Lesa M. Covington Clarkson

Committee Members: Dr. Stefanie Marshall, Dr. Erin Baldinger, Dr. Nina Asher

# Virginia Commonwealth University, School of Engineering

Richmond, Virginia

August 2016

Master of Science, Biomedical Engineering

University of Virginia, School of Engineering and Applied Science

Charlottesville, Virginia

May 2013

Bachelor of Science, Biomedical Engineering

# **ACADEMIC POSITIONS**

University of Virginia, Charlottesville, Virginia

September 2022 – Present

Mellon Postdoctoral Researcher, Youth-Nex

Leads the research infrastructure for the Youth Action Lab, a research initiative that partners with local teachers, schools, and youth-serving organizations to engage young people in youth participatory action research (YPAR); Maintains IRB approval to evaluate the outcomes of the lab; Supports a team of undergraduate and graduate researchers who facilitate in-person YPAR projects as well as data collection; Coordinates reciprocal community partnerships between Youth Action Lab and local school districts and community-engaged organizations.

### **RESEARCH GRANTS**

#### **Submitted Grant**

Honoring Youth Voices: Youth Participatory Action Research Scale Development, Co-Principal **Investigator** with Ashlee Sjogren, Ph.D. and Molly Cory, Ph.D., William T. Grant Foundation Officers' Research Grant (\$50,000)

### **EDUCATION RESEARCH EXPERIENCE**

### University of Minnesota, Graduate Research Assistant

January 2021 - May 2022

Department of Curriculum and Instruction Supervisor: Abigail Rombalski, Ph.D.

YoUthROC Program

Provided administrative support and mentoring for YoUthROC, a community and university-connected youth research team dedicated to equity initiatives; Trained YoUthROC members on qualitative methods for youth participatory action research (YPAR) projects; Coordinated reciprocal community partnerships between YoUthROC and local school districts, non-profit organizations, and nearby colleges; Monetarily sustained YoUthROC initiatives through grant writing and internal/external sales.

#### University of Minnesota, Graduate Research Assistant

January 2019 – May 2022

Department of Curriculum and Instruction

Supervisor: Stefanie Marshall, Ph.D.

# Race, Culture, and Coffee (RCC) Project

Conducted interviews and facilitated focus groups for Race, Culture, & Coffee – a virtual space for teacher candidates, in-service teachers, and other educators to grapple with cultural conversations and create a network of social justice-oriented educators; Collaborated with research team to plan group discussions and create a proposal for budgeting; Analyzed qualitative data to investigate what key features of RCC enhanced participants' racial critical consciousness.

### University of Minnesota, Graduate Research Assistant

September 2018 – May 2022

Department of Curriculum and Instruction

Supervisor: Lesa Clarkson, Ph.D.

Prepare2Inspire (P2N) Tutoring Program

Managed recruitment, training, and administrative tasks for the near-peer mathematics tutoring and mentoring program; Maintained clear communication between parents, students, tutors, and community partners; Kept IRB paperwork up-to-date for associated P2N research; Conducted one-on-one interviews with undergraduate mentutors (mentor + tutor) and K-12 students about their experiences in P2N; Analyzed qualitative data for grant reports, conference presentations, and publications.

# University of Minnesota, Graduate Research Assistant

May 2020

College of Education and Human Development

Supervisor: Bhaskar Upadhyay, Ph.D.

Selected for the JRM Graduate Fellowship in Kathmandu, Nepal (Postponed due to the COVID-19 pandemic)

# University of Minnesota, Graduate Research Assistant

September 2018 – December 2018

Department of Curriculum and Instruction

Supervisor: Nimo Abdi, Ph.D.

Course Project: CI 8155 – Immigrant Families & US Schools

Organized parent focus groups to inform the local school district on families' perspectives and understandings of the strategic plan; Worked with a research team to interview parents, transcribe interviews, code transcriptions, and analyze coding data; Wrote a final report outlining methodologies, key themes, and implications.

### **PUBLICATIONS**

## **Peer-Reviewed Publications**

Marshall, S., **Forrester**, **J. V.,** & Tilsen, J. (forthcoming). Science for our children: Othermothering leadership within an elementary science network. *Journal of Research in Science Teaching*.

**Forrester, J. V.**, Covington Clarkson, L. M., & Contreras Gullickson, E. A. (2023). My brother's keeper: A case study examining a mentoring relationship between African American males. *Community Development*. https://doi.org/10.1080/15575330.2023.2259964

**Forrester, J. V.**, & Covington Clarkson, L. M. (2023). Cultivating mathematical proficiencies and identities through culturally and community-inspired activities. *Prometeica – Journal of Philosophy and Science*, 27, 761-771. https://doi.org/10.34024/prometeica.2023.27.15375

Rombalski, A., **Forrester, J. V.**, Smaller, A., & Oto, R. (2023). The Purple Room: A YPAR-designed healing space grounded in community-engaged school leadership. *Voices in Urban Education, 51*(1), 112-121.

Tilsen, J., **Forrester, J. V.,** & Upadhyay, B. (2021). Exploring nature of criticality in high school science teaching: Sociopolitical consciousness in multicultural science education. *Cultural Studies of Science Education*, *16*(4), 1183-1195. https://doi.org/10.1007/s11422-021-10044-w

Peck, S., Christensen, D., **Forrester, J. V.,** & Shui, H. (2020). Thematic critique of *Releasing the Imagination*: Essays on education, the arts, and social change. *Journal of Artistic & Creative Education,* 14(2), 1-12. https://jace.online/index.php/jace/article/view/415

# **Peer-Reviewed Book Chapters**

Covington Clarkson, L., **Forrester, J. V.,** & Contreras Gullickson, E. A. (2023). Prepare2Nspire: A community engaged social justice mathematics project. In J. Etim & A. Etim (Eds.), *Handbook of Research on Solutions for Equity and Social Justice in Education* (pp. 246-262). IGI Global. https://doi.org/10.4018/978-1-7998-9678-4.ch014

# **Peer-Reviewed Conference Proceedings**

**Forrester J. V.,** Covington Clarkson, L. M., Contreras Gullickson, E. (2022). Research-to-Practice-to-Community-Engaged Research: Empowering Community Learners. In Fernández, C., Llinares, S., Gutiérrez, A., & Planas, N. (Eds.) (2022). *Proceedings of the 45th Conference of the International Group for the Psychology of Mathematics Education* (Vol. 4). Alicante, Spain: PME. https://web.ua.es/es/pme45/documents/proceedings-pme45-vol4.pdf

Covington Clarkson, L. M., **Forrester J. V.**, Contreras Gullickson, E. (2022). "Missionaries" No More: Tutors as Beneficiaries in a Community-based Tutoring Program. In Fernández, C., Llinares, S., Gutiérrez, A., & Planas, N. (Eds.) (2022). *Proceedings of the 45th Conference of the International Group for the Psychology of Mathematics Education* (Vol. 4). Alicante, Spain: PME. https://web.ua.es/es/pme45/documents/proceedings-pme45-vol4.pdf

Staats, S., **Forrester J. V.,** Grande, S., Jefferson, N., & Nelson, V. (2022). "Writing the World" through Writing: Priorities for Composition Research in Social Justice Mathematics. In Fernández, C., Llinares, S., Gutiérrez, A., & Planas, N. (Eds.) (2022). *Proceedings of the 45th Conference of the International Group for the Psychology of Mathematics Education* (Vol. 4). Alicante, Spain: PME. https://web.ua.es/es/pme45/documents/proceedings-pme45-vol4.pdf

**Forrester, J. V.,** Covington Clarkson, L. M., & Contreras Gullickson, E. A. (2021). Steppin' into the future: Connecting BIPOC youth to STEM careers. In W. S. Walker, III, L.A. Bryan, S. S. Guzey, & E. Suazo-Flores (Eds.), *Proceedings of the 7<sup>th</sup> Annual Indiana STEM Education Conference*. Purdue University: Purdue e-Pubs. https://docs.lib.purdue.edu/instemed/2022/briefs/3/

# **Manuscripts in Preparation**

**Forrester, J. V.** (in preparation). Inclusivity, accountability, and care: Using critical theories to guide mathematics education. Will be submitted to *For the Learning of Mathematics*.

Staats, S., **Forrester, J. V.,** Grande, S. C., Jefferson, N., & Nelson, V. (in preparation). "Writing the world" through writing: Composition in social justice mathematics curriculum.

# **Public Scholarship**

**Forrester, J.** (2023, July 1). Asset & power mapping as tools for youth-led research [Blog post]. *Youth-Nex's YPAR Series*. https://youthnexblog.education.virginia.edu/?p=2511

**Forrester, J.** (2023, June 1). How can youth voice amplify research? Listening & leadership are key [Blog post]. *Youth-Nex's YPAR Series*. https://youthnexblog.education.virginia.edu/?p=2472

**Urban Research and Outreach-Engagement Center** (2022). Making math education more equitable [Interview]. https://uroc.umn.edu/news-events/making-math-education-more-equitable

**University of Minnesota's CEHD News** (2021). STEM PhD student Jessica Forrester is driven to create greater equity in math education [Interview]. https://news.cehd.umn.edu/stem-phd-student-jessica-forrester-is-driven-to-create-greater-equity-in-math-education/

# **PRESENTATIONS**

# **International Referred Paper Presentations**

Forrester J. V., Covington Clarkson, L. M., Contreras Gullickson, E. (2022).

Research-to-Practice-to-Community-Engaged Research: Empowering Community Learners [Oral Communication session]. 45th Conference of the International Group of the Psychology of Mathematics Education. Alicante, Spain.

Covington Clarkson, L. M., **Forrester J. V.,** Contreras Gullickson, E. (2022). "Missionaries" No More: Tutors as Beneficiaries in a Community-based Tutoring Program [Oral Communication session]. 45th Conference of the International Group of the Psychology of Mathematics Education. Alicante, Spain.

Marshall, S. M., **Forrester, J**., & Tilsen, J. (2022). *Preparing and retaining race-conscious science teachers through race, culture, & coffee*" [Roundtable session]. National Association for Research in Science Teaching (NARST) Annual Meeting, Vancouver, British Columbia.

# **National Referred Paper Presentations**

**Forrester, J.** & Covington Clarkson, L. (2023). *Equity, Joy, and Genius: Creating Community-Responsive Mathematics Activities* [Benjamin Banneker Association strand]. 2023 National Council of Teachers of Mathematics (NCTM) Annual Meeting and Exposition, Washington, D.C.

**Forrester, J. V.** (2023). From Mine to Ours: Methodological Reflections on a Community-Based Action Research Study [Symposium session]. University of Virginia's 2023 Postdoctoral Research Symposium. Charlottesville, Virginia.

Wald, B., **Forrester, J. V.,** Tilsen, J., & Marshall, S. M. (2023). *Sustaining Retention in Teacher Social-Emotional Support Through Critically Conscious, Culturally Affirming, and Systemic Learning Communities.* [Roundtable session]. 2023 American Educational Research Association (AERA) Annual Meeting. Chicago, Illinois.

Marshall, S. M., Tilsen, J., & Forrester, J. (2022). *Race, culture, & coffee: Preparing and retaining race-conscious teachers* [Roundtable session]. 2022 American Educational Research Association (AERA) Annual Meeting. San Diego, California.

**Forrester, J.** & Covington Clarkson, L. (2022). *Steppin' into the future: Connecting BIPOC youth to STEM careers* [Virtual research session]. 2022 Indiana STEM Education Conference, West Lafayette, Indiana.

Marshall, S. M., **Forrester, J**., & Tilsen, J. (2021). *Envisioning for science: Othermothering by a Black elementary principal* [Symposium session]. 2021 Research on Women and Education (RWE) Fall Conference, Virtual.

Johnson, S., Garcia, E., Chang, N., McCullough, S., Diggs, A., **Forrester, J. V.,** & Rombalski, A. (2021). *Youth in social movements* [Symposium session]. 2021 Ethnography in Education Research Forum, Virtual.

**Forrester, J.** & Covington Clarkson, L. (2021). *Because Black male mathematics models matter* [Burst session]. National Council of Teachers of Mathematics (NCTM) 2021 Annual Meeting, Atlanta, Georgia. (Conference canceled)

**Forrester, J.**, Gullickson, E., & Covington Clarkson, L. (2021). *My brother's keeper: A case study examining a mentoring relationship between African American males* [Roundtable session]. 2021 American Educational Research Association (AERA) Annual Meeting, Virtual. **Curriculum and Instruction Travel Award.** 

Gullickson, E., **Forrester, J., &** Covington Clarkson, L. (2020). *100 (or so) one hundred grid activities for the algebra student* [Burst session]. National Council of Teachers of Mathematics (NCTM) 2020 Centennial Annual Meeting, Chicago, Illinois. (Conference canceled)

#### **National Poster Presentations**

Marshall, S. M., **Forrester, J**., & Tilsen, J. (2021). *Othermothering within an elementary science network* [Poster session]. National Association for Research in Science Teaching (NARST) 94<sup>th</sup> Annual International Conference. Virtual.

#### **Invited Talks & Panels**

PSYCH: 5000: Practicum in Community Psychology, **Guest Lecturer** (September 2023). Lead Instructor: Dr. Channing Mathews, University of Virginia, Charlottesville, VA.

Youth-Nex's 8<sup>th</sup> Conference – Pass the Mic: Amplifying Youth Voice and Agency, **Panel 6 Moderator** (October 2022). University of Virginia, Charlottesville, VA.

DirecTrack to Teaching Session on Culturally Relevant STEM Education, **Guest Speaker** (December 2021). Department of Curriculum and Instruction, University of Minnesota, Minneapolis, MN.

Eagan High School's Advancement Via Individual Determination (AVID) Course, **Guest Speaker** (March 2021). Independent School District 196, Eagan, MN.

C&I's Recruitment Day, **Panelist** (March 2021). Department of Curriculum and Instruction, University of Minnesota, Minneapolis, MN.

# **Workshops and Webinars**

Youth-Nex's Elevating Student Voice to Improve Relationships, Programs, & Policies YPAR Workshop, **Co-Planner** (August 2023). University of Virginia. Charlottesville, VA.

YoUthROC's Research to Social Action Workshop Series, Co-Planner (Spring 2022). University of Minnesota's Urban Research and Outreach-Engagement Center, Minneapolis, MN.

YoUthROC's Introduction to Youth Participatory Action Research Workshop Series, **Co-Planner** (Fall 2021). University of Minnesota's Urban Research and Outreach-Engagement Center, Minneapolis, MN.

Johnson, S., Smaller, A., & Forrester, J. V. (2021). Youth-Powered Curriculum for Social Action: How to Engage Youth in Economics Classes. Webinar session for MN Council on Economic Education (MCEE) Conference, Virtual.

# **HONORS & AWARDS**

Presidents' Student Leadership Award, Iowa & Minnesota Campus Compact, 2022

**Leadership in Equity, Inclusion, and Diversity (LEID) Fellowship,** University of Minnesota, Minneapolis, MN, \$33,000 – 2021

Emerging Engagement Scholar, Engagement Scholarship Consortium, 2021

Ruth Eckert Scholarship, University of Minnesota, Minneapolis, MN, \$1,000 – 2019

**Diversity of Views and Experiences (DOVE) Fellowship,** University of Minnesota, Minneapolis, MN, \$25,000 – 2018-2021

NSF Preparing and Graduating Engineering Scholars (PAGES) Scholarship, University of Virginia, Charlottesville, VA, \$500 – 2013

Harry B. Gilbert Merit Scholarship, University of Virginia, Charlottesville, VA, \$500 – 2012

Frank S. Goodman Endowment Scholarship, University of Virginia, Charlottesville, VA, \$16,000 – 2009-2013

# **POST-SECONDARY TEACHING**

# University of Virginia, Instructor (alongside Sarah Beach, Ph.D.)

Spring 2023

School of Education and Human Development

Course: EDLF 3000 – Research for Youth Development

# University of Minnesota, Instructor

Summer 2020

College of Education and Human Development

Course: CI 5102/5103 - Culture, Communities, and Schools

# Virginia Commonwealth University, Pre-Calculus Instructor

Summer 2015 & 2016

Louis Stokes Alliances for Minority Participation (LSAMP) Summer Program

# Virginia Commonwealth University, Teaching Assistant

Spring 2014 & 2015

College of Engineering

Course: EGRB 215 – Computational Methods in Biomedical Engineering

#### Virginia Commonwealth University, Teaching Assistant

Fall 2013 & 2014

College of Engineering

Course: EGRB 427 – Biomaterials

### **CONSULTING WORK**

### University of Virginia, YPAR Expert Consultant

September 2022 – Present

WAYS (Wellness and Youth Social Action) Lab, PI: Irène Mathieu, MD, MPH

### Harvard Kennedy School of Government, YPAR Consultant

January 2023 – Present

Governance Performance Lab (GPL), Contact: Damonique Sonnier

#### **SERVICE TO UNIVERSITY**

### University of Minnesota, Department of Curriculum and Instruction

Research Project Judge, 2019

### Virginia Commonwealth University, Louis Stokes Alliances for Minority Participation

Search Committee for an Assistant/Associate Professor in Mathematics Education, 2020-2021

#### **SERVICE TO PROFESSION**

#### **Ad-hoc Proposal Reviewer**

Mathematics Education and Society, 2023

IGI Global, 2022

Engagement Scholarship Consortium, 2022

American Educational Research Association, 2021

## **Professional Memberships**

American Educational Research Association National Council of Teachers of Mathematics Society for Community Research and Action

# K-12 TEACHING AND RELATED EXPERIENCE

Independent School District 196, Eagan High School

October 2018 – June 2022

Advancement Via Individual Determination (AVID) Tutor (Grade 9-12)

**University of Minnesota,** *Urban Research Outreach-Engagement Center* January 2020 – September 2021 *Student Administrative Specialist* 

National Society of Black Engineers (NSBE), Minneapolis Chapter

June 2019

Summer Engineering Experience for Kids (SEEK) Program, Lead Counselor (Grade 5)

Ascension Catholic Academy, Ascension Catholic School

January 2019 – May 2019

*Tutor (Grade 5-8)* 

KIPP DC, Northeast Academy

July 2017 – June 2018

Inclusion Specialist (Grade 5-8)

KIPP DC, Northeast Academy

October 2016 – June 2017

STEM Teaching Fellow (Grade 5-8)

University of Virginia, Center for Diversity in Engineering

July 2013

Summer BRIDGE Counselor (Higher Education)

University of Virginia, Center for Diversity in Engineering

June 2013

Introduction to Engineering (ITE) Program, Lead Counselor (Higher Education)

University of Virginia, Center for Diversity in Engineering

January 2013 – May 2013

Engineering Tutor (Higher Education)

University of Virginia, Day in the Life Program

Tutor (Grade 5-8)

October 2010 – May 2013

### ENGINEERING RESEARCH EXPERIENCE

Virginia Commonwealth University, Graduate Research Assistant

May 2014 – August 2016

Department of Biomedical Engineering

Supervisor: Ning Zhang, Ph.D.

Thesis Project

The University of Virginia, *Undergraduate Research Assistant* 

September 2012 – May 2013

Department of Biomedical Engineering

Supervisor: Patrick Cottler, Ph.D., Luna Innovations

Capstone Project

The University at Buffalo, Undergraduate Research Assistant

May 2012 - July 2012

Department of Biotechnical & Clinical Lab Sciences Supervisor: Patrick Cottler, Ph.D., Luna Innovations

The Summer Undergraduate Research Experience (SURE) Project