

SAMANTHA MARSHALL
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EDUCATION

- Expected
May 2020 **Ph.D. Learning, Teaching, and Diversity**
 Vanderbilt University
Specialization: Mathematics and Science Education
Committee: Dr. Ilana S. Horn (chair), Dr. Nicole M. Joseph, Dr. Elizabeth Self, Dr. Kari Kokka
- 2014 **M.A. Secondary Education**
 Columbia University
Concentration: Mathematics
- 2008 **B.S.E. Mathematics**
 Oklahoma Christian University
2nd Major: Vocational Ministry
Honors: Academic Scholarship; Kappa Mu Epsilon (mathematics honor society)
Activities: Varsity Cross-Country and Track & Field

RESEARCH EXPERIENCE

- 2019-present **NSF INTERN, *Math for America Los Angeles***
 Principal Investigator
Through my second INTERN grant, I have received support to design a new program for Math for America Los Angeles (MfA LA) teachers, to investigate STEM teachers' learning of culturally sustaining teaching, in particular through video-based formative feedback cycles.
- 2018-2019 **NSF INTERN, *Math for America Los Angeles***
 Principal Investigator
Through the INTERN grant, I received support to work with MfA LA professional development designers in conceptualizing, building, and responsively adapting mathematics teacher professional development. I study how accomplished teachers learn through coaching, and contribute to MfA LA's professional development design by working with program directors. Through this internship, I am developing a new strand of research on the potential of coaching to support mathematics teachers in culturally responsive and culturally sustaining teaching.
- 2016-present **Graduate Research Assistant, *Project SIGMa***
 Principal Investigator: Dr. Ilana S. Horn
Project SIGMa (Supporting Instructional Growth in Mathematics) is a research-practice partnership between researchers at Vanderbilt University and a professional development organization, Math for America Los Angeles, and is funded by the National Science Foundation. Using design-based implementation research, we are co-designing a video-based coaching model to support experienced secondary mathematics teachers in improving their practice. As a part of this project, I have taken the lead at one of our partner schools, and developed my own strands of research on mathematics teacher learning from professional development. I also served as project manager, mentoring and managing undergraduate and masters student research assistants as well as data storage and organization.
- 2017-2018 **Independent Project, *Mathematics Education for Native American Students***
 Principal Investigator
Seeking to rehumanize mathematics education for Indigenous students, I obtained IRB approval to conduct qualitative research, to understand and honor the values and goals of Indigenous leaders and tribal nations for secondary mathematics education.

2013-2014 **Action Research Project**, Teachers College, Columbia University

Thesis advisor: Dr. Iesha Jackson

I designed and executed a qualitative action research project to explore promotion of perseverance on mathematics tasks.

PUBLICATIONS

Brady, C. B., Blough, R., Hollister, K., Jordan, P., **Marshall, S. A.**, Nichols, I., Vogelstein, L. E., & Wisittanawat, P. (2019). Clockface polygons and the collective joy of making mathematics together. *The Mathematics Enthusiast*, 16(1), 75-106.

Marshall, S. A. (2018). To sustain tribal nations: Striving for Indigenous sovereignty in mathematics education. *Journal of Educational Foundations*, 31(1 & 2), 9-37.

Marshall, S. A. (2017). A sense of possibility: Cultivating perseverance in an urban mathematics classroom. *Journal of Teacher Action Research*, 3(3), 1-23.

MANUSCRIPTS UNDER REVIEW AND IN PREPARATION

Marshall, S. A., & Horn, I. S. (under review). *Mathematics teachers' learning in professional development: A situative account of an overlooked phenomenon*. Manuscript submitted for publication.

Joseph, N. M., **Marshall, S. A.**, & Harmon, M. (in preparation). *NSF funding and broadening participation: Examining and problematizing a case of Black women in STEM*. Manuscript in preparation.

Chen, G. A., **Marshall, S. A.**, & Horn, I. S., (in preparation). *How do I choose? Morality and mortality in mathematics teaching*. Manuscript in preparation.

Marshall, S. A. (in preparation). *What makes mathematics teacher coaching effective? A call for a justice-oriented, situative perspective*. Manuscript in preparation.

PROCEEDINGS

Chen, G. A., & **Marshall, S. A.** (accepted, 2019). Conversational patterns and opportunities for teacher learning in collaborative planning conversations. *Proceedings of the North American Chapter of the International Group for the Psychology of Mathematics Education*. St. Louis, MO: Hoosier Association of Mathematics Teacher Educators.

*Chen, G. A., & ***Marshall, S. A.** (2018). Mathematics teachers' learning to enact change in oppressive systems. *Proceedings of the International Conference on Urban Education*. Nassau: Urban Education Collaborative.

PAPERS PRESENTED AT PROFESSIONAL MEETINGS

Buenrostro, P. M., **Marshall, S. A.**, & Horn, I. S., (2020, submitted). *Coaching through co-inquiry: Augmenting teachers' pedagogical judgment through video*. Paper presented at American Educational Research Association annual meeting, San Francisco, CA.

Ehrenfeld, N., **Marshall, S. A.**, Garner, B., & Schneeberger McGugan, K., (2020, submitted). *Uptake and development of conceptual resources in teachers' conversations*. Poster presented at American Educational Research Association annual meeting, San Francisco, CA.

Ehrenfeld, N., & **Marshall, S. A.** (2019, accepted). Conceptual resources in teacher professional conversation. Paper presented at the Learning Sciences Graduate Student Conference, Chicago, IL.

Marshall, S. A., Buenrostro, P. M., & Horn, I. S. (2019, April). *Using teachers' and students' sensemaking in coaching: Supporting development of real-world mathematical connections*. Paper presented at American Educational Research Association annual meeting, Toronto, Canada.

(*) indicates that these authors contributed equally to this publication

- Marshall, S. A.,** Buenrostro, P. M., Chen, G. A., Garner, B., Ehrenfeld, N., & Horn, I. S. (2019, February). *Adding value in coaching by centering the mathematics*. Paper presented at the Twenty-Third Annual Conference of the Association of Mathematics Teacher Educators, Orlando, FL.
- Marshall, S. A.,** & Buenrostro, P. M. (2018, October). “*When am I going to use this in the real world?*”: *Supporting teachers in their quest for authentic mathematical learning experiences*. Paper presented at the Learning Sciences Graduate Student Conference, Nashville, TN.
- Marshall, S. A.,** & Chen, G. A. (2018, October). *Divining affordances: How do teachers find and capitalize on opportunities to disrupt oppressive schooling?* Paper presented at the 8th International Conference on Education and Social Justice, Honolulu, HI.
- Ridgeway, M. L., Buenrostro, P. M., **Marshall, S. A.,** & McGee, E. O. (2018, October). *En solidaridad!: Mathematics education scholars of color cultivating notions of brilliance*. Paper presented at the 8th International Conference on Education and Social Justice, Honolulu, HI.
- Chen, G. A., & **Marshall, S. A.** (2018, September). “*That makes me a really great teacher*”: *Logics of White Christian womanhood in teaching*. Paper presented at the Race & Pedagogy National Conference, Tacoma, WA.
- Marshall, S. A.,** & Chen, G. A. (2018, May). *Finding our role in the system: The co-construction of a mathematics teacher axiology*. Invited paper presentation at the Working Conference on Discourse Analysis in Educational Research, Columbus, OH.
- Marshall, S. A.,** & Horn, I. S. (2018, April). *Teachers’ recontextualization of practices learned in professional development: The importance of professional learning goals in context*. Paper presented at American Educational Research Association annual meeting, New York, NY.
- Marshall, S. A.** (2018, April). *Adaptations and innovations: Teachers’ agency and goals in learning from professional development*. Poster presented at American Educational Research Association annual meeting, New York, NY.
- Davison, C. H., Joseph, N. M., Allen, E. V., Patton, D. L., Stewart, S. N., **Marshall, S. A.** & Chen, G. A. (2018, April). *I AM: Intersectionality as methodology and Black women as possibility models for educational research*. Paper presented at American Educational Research Association annual meeting, New York, NY.
- Garner, B., Horn, I. S., Chen, G. A., & **Marshall, S. A.** (2018, February). *Video-based formative feedback: Supporting in-service teachers’ learning*. Paper presented at the Twenty-Second Annual Conference of the Association of Mathematics Teacher Educators, Houston, TX.
- Marshall, S. A.** (2017, December). “*My proudest legacy*”: *Toward sovereignty in mathematics education for First Nations*. Paper presented at the 7th International Conference on Education and Social Justice, Honolulu, HI.
- Marshall, S. A.** (2014, May). *A sense of possibility: Cultivating perseverance in an urban mathematics classroom*. Paper presented at the Diversity in Research and Practice Conference, New York, NY.

SELECTED PRESENTATIONS AND WORKSHOPS

- Marshall, A. A.** (2020, January). *Teacher coaching in support of social justice STEM*. Workshop presented at the Creating Balance in an Unjust World conference, Honolulu, HI.
- Marshall, S. A.** (2019, February). *Wonder-worthy mathematics*. Workshop presented at Math for America, New York, NY.
- Chen, G. A., Joseph, N. M., Leyva, L. A., Dunleavy, T., Wager, A., Ehrenfeld, N., & **Marshall, S. A.** (2019, February). *Moving toward emancipatory pedagogies in the research, teaching, and learning of P-20 mathematics*. Workshop presented at the Twenty-Third Annual Conference of the Association of Mathematics Teacher Educators, Orlando, FL.

(* indicates that these authors contributed equally to this publication

Vogelstein, L. E., **Marshall, S. A.**, Chen, G. A., & Jackson, A. (2018, October). *Ambassadors and advocacy: A workshop on positionality*. Workshop presented at the Learning Sciences Graduate Student Conference, Nashville, TN.

Chen, G. A., Garner, B., & **Marshall, S. A.** (2017, July). *What is the relationship between the Standards for Mathematical Practice & equity?* Workshop presented at Twitter Math Camp Conference, Atlanta, GA.

GRADUATE TEACHING EXPERIENCE

Fall 2018 **Teaching Assistant** Vanderbilt University
EDUC 7500 Humanizing Pedagogies
Co-designed and co-taught a new course in the department of Teaching & Learning, under the tutelage of Drs. Patricia M. Buenrostro & Ilana S. Horn. With masters and doctoral students, we reimagined education to work toward humanization of children and communities.

K-12 TEACHING AND PROFESSIONAL DEVELOPMENT EXPERIENCE

Oct. 2015- **Director of UMS Mathematics** Tennessee and Mississippi
Aug. 2016 *RePublic Schools*
Coached network middle and high school math teachers; crafted curricula and assessments for network schools; designed and led ongoing professional development

Jul. 2015- **Director of Lower School** Nashville, TN
Oct. 2015 *RePublic Schools – Liberty Collegiate Academy*
Managed operations, curriculum, and instruction in the lower grades of the middle school; coached 16 teachers (all contents) to develop effective instructional practices, create quality curricula, and design equitable learning environments; designed and led weekly professional development

Jul. 2014- **Mathematics Teacher** Brooklyn, NY
Jun. 2015 *Uncommon Charter High School*
Taught honors pre-calculus, pre-calculus, and computer science; developed assessments for pre-calculus used by all Uncommon high schools in New York; coached robotics club

Feb. 2014- **Curriculum Associate** New York, NY
Aug. 2014 *The Parris Foundation*
Wrote curricula and taught science, engineering, robotics, programming, and mathematics; designed interactive mathematics, science, and robotics curricula for 6th, 7th, and 8th grade summer camp to mitigate summer learning loss and stimulate interest in STEM; coordinated volunteers and programming for STEMulating Minds extended learning opportunities; provided tutoring support for middle school students in math and science

Oct. 2013- **Peer Tutoring Supervisor** New York, NY
Jun. 2014 *Teachers College Office of School & Community Partnerships*
Managed peer tutoring programs at public middle/high schools in Harlem to support students' learning; recruited, wrote training curriculum, trained, and managed student tutors

Jan. 2012- **Mathematics Department Chair** Oklahoma City, OK
May 2013 *U.S. Grant High School*
Led team of 18 math teachers during school turnaround; interviewed teacher candidates, led lesson studies, and coached new teachers; presented data reviews to the Oklahoma State Department of Education to report quarterly progress; oversaw development and implementation of curriculum and assessments

Aug. 2012- **PD Facilitator** Oklahoma City, OK
May 2013 *Oklahoma City Public Schools*
Designed and presented to other departments and schools a process for disaggregating data from formative assessments; co-designed and presented writing in the content area PD; led team data

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analysis meetings that the Oklahoma State Department of Education videotaped as a model for all other priority schools in the state

Jan. 2011-
May 2013 **Mathematics Teacher** Oklahoma City, OK
U.S. Grant High School
Taught Algebra 1, Geometry, and Math Enhancement; led freshman academy team in sheltered instruction.

SERVICE

Ad Hoc Manuscript Reviewer
2019 *Journal of Teacher Action Research*
2018 *Journal of Teacher Action Research*
2017 *Journal of Teacher Action Research*
2017 *Teachers College Record*
2016 *Journal of Teacher Action Research*

Conference Reviewer
2019 *Psychology of Mathematics Education – North America*
2018 *Annual Conference of the Association of Mathematics Teacher Educators*
2018 *American Education Research Association Annual Meeting*
2018 *Learning Sciences Graduate Student Conference*
2018 *American Education Research Association Annual Meeting*
2017 *International Conference of the Learning Sciences*

2018 **Co-Chair, Department of Teaching & Learning Doctoral Student Association**

2018 **NSF Graduate Research Fellowship Program Student Panel, Vanderbilt University**

2017-2018 **Humbert H. Humphrey Fellowship AmbassaDore, Vanderbilt University**

SELECTED HONORS, FELLOWSHIPS, AND GRANTS

2017-2021 **NSF Graduate Research Fellowship Program (GRFP) Fellowship** (\$138,000)
National Science Foundation

2017-2021 **Sigma Xi**
Associate Member

2019-2020 **NSF INTERN Award** (\$47,474)
National Science Foundation
Internship with Math for America Los Angeles

2018-2019 **Jasmine Ma Award**
for service to the DTL DSA Community

2018-2019 **NSF INTERN Award** (\$46,605)
National Science Foundation
Internship with Math for America Los Angeles

2018-2019 **Research & Travel Grant** (\$2,210)
Russell G. Hamilton Award

2018-2019 **Travel Grants to Present Research at Professional Meetings** (\$1,500)
Peabody College, Vanderbilt University

2018-2019 **Graduate Student Travel Grant to Present Research** (\$500)
Vanderbilt University

2017-2018 **Travel Grants to Present Research at Professional Meetings** (\$1,500)
Peabody College, Vanderbilt University

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2017-2018	Graduate Student Travel Grant to Present Research Vanderbilt University	(\$500)
2018-2019	Peabody Dean's Fellowship Peabody College, Vanderbilt University	(\$5,000)
2016-2017	Distinguished Alumnus Oklahoma Christian University College of Education	
2016-2021	Graduate Honor Scholarship Vanderbilt University	(\$50,000)

PROFESSIONAL MEMBERSHIPS

National Council of Teachers of Mathematics (NCTM)

American Educational Research Association (AERA)

- Division K
- SIG – Research in Mathematics Education
- SIG – Critical Educators for Social Justice

Association of Mathematics Teacher Educators (AMTE)

Vanderbilt Graduate Student Council

Peabody Graduate Council for Equity, Diversity, and Inclusion

Peabody Graduate Student Association

Department of Teaching & Learning Doctoral Student Association