

# STEPHANIE WORTEL-LONDON

## CONTACT

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## RESEARCH APPROACHES

Mixed Methods

Qualitative Analysis and Open Coding

Semi Structured Interview

Case Study

Triangulation

## EDUCATION

**Ph.D. Science Education, 2019**

**Stony Brook University**

Dissertation:

STEM Identity Formation through Undergraduate Mentoring Experiences and Middle School Learning in an Urban Informal Afterschool Program

**MSED Science Education, 2009**

**CUNY Lehman College**

Thesis:

Developing Methodologies for Assessing Interest in Science Careers in Informal Environments

**BA Astronomy-Physics, 2006**

**Colgate University**

Thesis:

The Circular Twin Paradox

## LANGUAGES

English



German



French



Yiddish



## WORK EXPERIENCE

### Director of Research

CSforALL

2018-2024

- Together with Executive Director, design and implement a research and evaluation strategy for a \$3M organization with national program reach.
- Collaborated on 15 NSF proposals at the senior personnel or principal investigator level, resulting in 5 awarded proposals for a total of \$7.5 million.
- Contributed to 14 publications including 11 peer reviewed articles, 2 book chapters, 1 white paper and multiple practitioner facing briefs across multiple projects.
- Led, as Principal Investigator, a \$1.2M NSF Research Practice Partnership to impact CS education in the state of TN through CSforALL's SCRIPT program.
- Co-led, as senior personnel, the technical network to support the over 150 NSF awarded Research Practice Partnerships in the CS for All: Research Practice Partnership program. This work included creating project spotlights, RPP Theme Studies, and co-creating content for monthly webinars for the network.
- Co-led, as Co-PI the launch of the CSforALL Broadening Participation in Computing Alliance and co-created a research agenda to measure the effects of CSforALL membership on the United States.
- Participated as a reviewer for scholarly journals, conferences, and panelist for the National Science Foundation.
- Participated in day-to-day organizational leadership and strategy decisions as a member of the senior leadership team at CSforALL

### Director of Education

New York Academy of Sciences

2011-2018

- Led the Science Alliance, Virtual Mentoring Programs, and In-Person STEM Mentoring Programs for graduate students and postdoctoral researchers, school-aged children, and STEM professionals from around the world, bolstered by rigorous online and in-person coursework that focuses on academic and career readiness, as well as Soft Skills and 21st Century Skills development.
- Oversaw the development of other international, virtual STEM mentoring programs.
- Coordinated and maintained relationships with international and domestic partners in programming.
- Oversaw a team of Americorps VISTA interns assisting with capacity building in the Global STEM Alliance.
- Maintained budgets and assembled proposals for government grants, new partnerships, and new programming.
- Recruited and trained more than 1,000 science grad students to teach afterschool in high need middle schools.
- Mentored novice science educators and developed hands on, inquiry-based science curricula.
- Coordinated and maintained relationships with more than seventy afterschool program locations in New York City.
- Assisted the Senior Vice President for Education with new program design and implementation.
- Wrote entertaining blog articles on current science and technology news for an audience including educators and researchers.

### Adjunct Professor, Professional Development Leader, Youth Educator, and Astrophysics Research Assistant

American Museum of Natural History

2007-2017

- Co-taught a 3-credit Space Systems course for residents preparing for an Earth Science New York State Teaching certificate and a Master's degree., and co-designed curriculum for each session with a PhD Astronomer.
- Co-taught a Moodle-based astronomy professional development course online for inservice teachers.
- Taught astrophysics module to sixth, seventh, and eighth graders, designed and co-instructed a courses for high school Student Research Mentoring Program, and designed and taught astrophysics courses for students Pre-K through fifth grade.
- Computed Spitzer infrared data for photometry of brown dwarf stars and analyzed echelle spectra of planetary nebula for radial velocity periods using IRAF software.

### Earth Science Teacher

Leadership Institute High School (Bronx, NCES ID: 360008605795)

2007-2009

- Certified to teach Tenth and Eleventh Grade Earth Science under the Initial Teaching Certificate and selected as a member of New York City Teaching Fellows Cohort 14.

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## HONORS

- Catalyzing Advocacy in Science and Engineering Workshop, AAAS, 2016
  - Chosen to represent Stony Brook at workshop designed to inform scientists about science policy development at the federal level.
- Graduate Student Travel Scholarship, Association for Science Teacher Education, NE Region, 2015
  - Awarded to offset travel to international ASTE conference on the strength and novelty of author's conference abstract.
- Howard Hughes Medical Institute Science Education Fellowship, Stony Brook University, 2013
  - Awarded by the Institute for STEM Education to doctoral students active in the pursuit of publications.
- 1819 Award, Colgate University, 2006
  - Top student award, given to one senior who best exemplifies leadership, scholarship, and "the spirit that is Colgate."

## REFERENCES

### Leigh Ann DeLyser

914-806-4211

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### Meghan Groome

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## SELECTED RESEARCH LEADERSHIP

### BPC-A: Systemic Change for Broadening Participation in K12 CS Education Pathways

Co-Principal Investigator, NSF Awarded 2022

Research Question: How do the mechanisms in an alliance committed to equity and justice in CS education, composed of leaders and institutions serving students and teachers in diverse ways, drive impacts resulting in broadened participation in computing through the K-12 space?

Key Publication:

Cobo, A., Wortel-London, S.B., & DeLyser, L.A. (2024, May). A Field Catalyst Approach to Systems Change in K-12 CS Education . In Proceedings of the 2024 RESPECT Annual Conference (RESPECT2024). ACM, New York, NY, USA, 4 pages. <https://doi.org/10.1145/3653666.3656068>

### SCRIPT Crew TN: Impacts of State-Wide SCRIPT on CS Education Pathways in TN

Principal Investigator, NSF, Awarded 2021

Research Questions: (1) How does strategic planning using SCRIPT materials, routines, and data tools impact buy-in, decision making, and actions taken at the school district level in TN?, (2) What impact, both direct and indirect, do these resources have on the capacity, access, participation, and experience of historically marginalized or underrepresented populations in standards aligned CS pathways from K-12?

Key Publication:

Cobo, A., Wortel-London, S. B., DeLyser, L. A., & James, D. E. (2024, March). Small Steps, Big Progress: Analyzing District Led Goals to Advance CS Education. In Proceedings of the 55th ACM Technical Symposium on Computer Science Education V. 1 (pp. 221-226).

### Additional Select Publications

- DeLyser, L.A., Wortel-London, S.B. & Wright, L. (2022). Supporting Ongoing Teacher Capacity and Development: Moving Beyond Orientation Professional Development to Support Advanced Teacher Learning. in C. Mouza, A. Ottenbreit-Leftwich & A. Yadav, (Eds.) *Professional Development for In-Service Teachers: Research and Practices in Computing Education*. IAP.
- Wortel-London, S. B., DeLyser, L.A., & Sexton, S. (2021, March). Community Design for Connected Communities of Practice in Computer Science Education Research. In *SIGCSE '21: Proceedings of the 52nd ACM Technical Symposium on Computer Science Education*. <https://doi.org/10.1145/3408877.3439646>
- DeLyser, L.A., Wright, L., Wortel-London, S.B., & Bora, A. (2020). Evaluating A Systems Approach to District CS Education Implementation. In *Proceedings of the 51st ACM Technical Symposium on Computer Science Education (SIGCSE '20)*. <https://doi.org/10.1145/3328778.3366898>
- Wortel-London, S.B. & Kelly, A.M. (2017, March) "I like STEM, but am I a STEM-person?" Effects of Informal Learning and Mentors on STEM Identity. In Proceedings of the National Association for Research in Science Teaching. San Antonio, TX.
- Wortel, S.B., Kelly, A.M., Groome, M.P. & Ha, M. (2016, March). Recruiting STEM graduate students for K-12 education: Development of an instrument for identifying candidates. In Proceedings of the National Association for Research in Science Teaching. Baltimore, MD.
- Wortel-London, S.B. (2019). *STEM Identity Formation through Undergraduate Mentoring Experiences and Middle School Learning in an Urban Informal Afterschool Program* [Doctoral Dissertation, Stony Brook University]. Proquest.