

Vivian Ali Zohery

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EDUCATION

Doctor of Philosophy: Teaching, Learning, Policy, & Leadership | Mathematics & Science Education Spring 2023
University of Maryland | College Park, Maryland

Master of Arts: Science Education Spring 2020
University of Maryland | College Park, Maryland

Bachelor of Science: Biology, Physiology and Neurobiology Specialization December 2017
Minor: Astronomy
University of Maryland | College Park, Maryland

EXPERIENCE

Principal Investigator of [Sisters Interrogating STEM Action Research](#) January 2023 - Present
Participatory Action Research | University of Maryland, College Park

- Designed and Launched a course-based Participatory Action Research (PAR) project investigating the involvement of undergraduate Muslim women in STEM majors. Our goal was to advocate for STEM equity and exercise decolonial research methodologies in STEM education.
- Recruited and interviewed four (4) community researchers from the Muslim community at the University of Maryland, College Park to take on the PAR project.
- Training community researchers in critical literary analysis, qualitative research methodologies, academic writing, and giving presentations to empower them to conduct authentic research in their community and convey it to academia. Community researchers were able to conduct decolonial research methodologies and analysis, produce publishable journal articles, and present at national conferences such as the Research on Women in Education (RWE) and the American Education Research Association (AERA).

Course Instructor of [TLPL252: Students, Communities, & Schools](#) January 2024 - Present
Teaching, Learning, Policy, & Leadership - College of Education | University of Maryland, College Park

- Instructing seven pre-service math and science teachers on middle school teaching philosophy through challenging them to explore their own identities as well as the perspectives of students and families in United States schools, with a focus on local contexts.
- Designed an overarching inquiry project for the course that challenges them to collaborate in simulated middle school teams to develop resources for middle school students and families. They worked in teams to submit a Teaching Portfolio that included their teaching philosophy, examples of lesson plans that used Culturally Relevant Pedagogy, and a community-centered project for local middle schoolers based on their research on and visits to a College Park/Hyattsville community.

Course Instructor of [CPSS240: Service Learning Practicum in Robotics](#) January 2022 - May 2023
College Park Scholars - Science, Technology, & Society Program | University of Maryland, College Park

- Instructed 50 + students on contemporary challenges related to STEM Education on a local, national, and international scale. Topics included but not limited to: gender and race disparities in STEM culture and education, cognitive learning theories, culturally relevant pedagogies, and historical and philosophical perspectives of science.
- Spring 2022: Orchestrated a program for the development of new [G.O.A.L. kit](#) ideas. This included organizing seven student teams and connecting them with seven elementary school teacher partners in Montgomery County, Maryland, and training students in developing curriculum maps and lesson plans that align with the Next Generation Science Standards (NGSS) for implementation in these schools.
- Fall 2022 & Spring 2023: Using service learning as a teaching strategy, I coordinated on-site teaching opportunities for students to engage in developing an after school robotics program for elementary and middle school students in Prince George's County, Maryland. This included organizing appointments for fingerprinting and background checks for student teachers, setting up transporting services, training students in developing curriculum maps and lesson plans that align with the Next Generation Science Standards (NGSS) for implementation in schools, training teaching assistants on team management, and corresponding with PGCPs schools.

Graduate Assistant Lead

August 2021 - December 2022

Sister to Sister - Office of Multi-Ethnic Student Education | University of Maryland, College Park

- Managed and maintained ongoing program development for S2S initiative, a first year retention program created to establish an academic excellence and leadership forum for multi-ethnic women, including providing students with leadership opportunities, as well as personal, academic, and professional development opportunities.
- Provided structured support services to participants with minimal oversight, including monitoring E-board member meetings, pairing student mentors with mentees, scheduling academic tutors to hold study sessions for first year women, and holding office hour meetings with student body members to ensure their progression and sustainability.
- Coordinated and planned events, including general body meetings and E-board meetings to build a social network to support the retention of multi-ethnic women and connect undergraduate multi-ethnic females with upper-class students and professional mentors.
- Collaborated with fellow GAs on program development, and working with staff to implement the Vision and Mission of OMSE.

Science Curriculum Developer (Virtual Internship)

February 2021 - June 2021

Smithsonian Science Education Center | Washington, D.C.

- Assisted in the development of two Smithsonian Science for Global Goals (SSfGG) community research guides, specifically focused on biodiversity and sustainable communities for a global audience of students ages 8-17. Tasks included conducting research, writing, editing, and proofreading as part of a team of writers, editors, education specialists, and scientists.
- Researched and understood the United Nations Sustainable Development Goals along with their accompanying educational goals.
- Interviewed subject matter experts (SMEs) about biodiversity and sustainable communities for curriculum development, and translated high-level academic information into student-facing materials.
- Created case studies to showcase the work of SMEs who are collaborating on the community research guides.
- Incorporated field testing feedback into the curriculum research guides.

Graduate Research Assistant

October 2019 - January 2023

Science Learning Research Group | University of Maryland, College Park

- Authored and co-directed various research projects for the research group, which examines learners' reasoning, critical thinking, and understanding of scientific knowledge claims and how to effectively teach toward scientific literacy. Some projects included looking at Epistemic and Agentic Operations of students in a science classroom.
- Responsible for maintaining resource archives for both computer files and hard copy materials, including assisting in developing a dynamic set of resources through the school database and library and keeping track of all research materials and maintaining a log for the research computer lab.
- Assisted in setting up educational seminars that gave potential participants exposure to the kind of research we do, which is situated within the context of formal classroom settings and focuses on effective teaching tools and strategies to support deep learning, particularly about socio-scientific topics that pose local, regional, and global challenges (e.g., causes of current climate change, availability of freshwater resources).
- Often called on to assist with more comprehensive and complex projects, working closely with faculty to set up educational research resources for specific projects.

Astronomy Education Volunteer

February 2019 - December 2022

National Air & Space Museum - Smithsonian Institute | Washington, D.C.

- Pre- & Post-COVID19: Engaged visitors in observing the Sun through telescopes at the Phoebe Waterman Haas Public Observatory, as well as interacting with children while managing the "Decoding Starlight" Discovery station.
- Mid-COVID19: Attended over 10 webinars on museum education and astronomy lectures, including how to facilitate inquiry-based learning in museums, use telescopes, and communicate about astronomy with the public.

Graduate Teaching Assistant

December 2018 – August 2021

University of Maryland, Biological Sciences | College Park, Maryland

- Provided weekly instruction to students in class and in individual conferences as necessary in the following courses: BSCI201 (Human Anatomy & Physiology), BSCI207 (Organismal Biology), and BSCI353 (Principles of Neuroscience)
- Instructed lab sections for 30+ undergraduate students in BSCI201, both in live sessions and online, where I assisted students with analytical techniques including dissection methods, gravimetric analysis, proper data collection, writing lab reports, and statistics.
- Facilitated interactive discussions for 120+ undergraduate students taking BSCI207 & BSCI353, and held in-person office hours to help tutor struggling individuals.

- Created weekly lesson plans with fun and engaging activities/assignments that reflected course content, and guided students through homework and lab assignments.
- Assisted other TAs by sharing ideas on how to prepare lectures creatively, and providing examples of previous assignments used.
- Administered lab practicals throughout the semester, and supervised student examinations in main lecture halls.
- Graded all student work and uploaded grades to university Canvas/ELMS website in a timely manner, while providing constructive feedback based on student performance to enrich their educational experience, and maintaining confidentiality of student information in agreement with FERPA standards.
- Conducted course evaluations twice per semester to obtain appropriate feedback from students to gauge performance and improve teaching strategies.
- Functioned as a liaison between the professor and student by providing weekly handouts, discussion worksheets, flexible office hours, and emails with relevant information that could enhance exam preparedness.
- Attended regular training and development opportunities to maintain an up-to-date knowledge of various strategies and theories for effective educational pedagogies and development.

CONFERENCES & EVENTS ATTENDED

- Presenter at the American Educational Research Association (AERA) – April, 2024
- Presenter at National Association for Research on Science Teaching (NARST) – March, 2024
 - Doctoral Fellow with Sandra K. Bell Institute for Doctoral Students (SKAIDS), March 19th, 2024
 - Graduate Symposium, March 20th, 2024
- Presenter at Research on Women in Education (RWE), Las Vegas, Nevada - October, 2023

PUBLICATIONS & PRESENTATIONS

- Fouad, K. E., **Zohery, V. A.**, & Qazizada, N. (2023). Including Internationalization in a Secondary Science Methods Course for Pre-service High School Teachers. In *Internationalizing Rural Science Teacher Preparation: Action Research for Global Competency* (pp. 147-166). Cham: Springer International Publishing.
- Alam, S., Husain, Y., Khan, M., Meetul, N., **Zohery, V.** (2023). Resisting the STEMming of Muslim Women’s Pursuit in Scientific Endeavors. Poster presented at: University of Maryland Undergraduate Research Day; 2023 April 26; College Park, Maryland.
- Lombardi, D., Matewos, M. M., Jaffe, J., **Zohery, V.**, Mohan, S., Bock, K., & Jamani, S. (2022). [Discourse and agency during scaffolded middle school science instruction](https://doi.org/10.1080/0163853X.2022.2068317). *Discourse Processes*, 59(5/6), 379-400. <https://doi.org/10.1080/0163853X.2022.2068317>
- Lombardi, D., Matewos, M. M., Jaffe, J., **Zohery, V.**, Mohan, S., Bock, K., & Jamani, S. (2022). [Discourse and agency during scaffolded middle school science instruction](https://doi.org/10.1080/0163853X.2022.2068317). *Discourse Processes*. <https://doi.org/10.1080/0163853X.2022.2068317>
- Zohery, V.**, Gans, N., & Lombardi, D. (2022). [Scientific reflection in writing tools](#). Poster presented at the 32nd Annual Meeting of the Society for Text & Discourse, [Virtual](#).
- Zohery, V.**, Matewos, M. M., Cabrera, L., & Lombardi, D. (2022). [Examining science engagement: epistemic operations and agentic practices during argumentation](#). Paper presented virtually at the 2022 NARST Annual International Conference, Vancouver, BC.
- Hansen, J., Ramazon, N., **Zohery, V.**, Riggins, T. (2018). Associations between Hippocampal Subregions and Episodic Memory in Early Childhood. Poster presented at: University of Maryland Undergraduate Research Day; 2018 April 25; College Park, Maryland.
- Hayes-Gehrke, M. N, Ricciardi, C., **Zohery, V.**, Davy-Coore, K et al. “Lightcurve Analysis of 1654 Bojeva.” *The Minor Planet Bulletin*, Vol. 43, No. 2, Apr. 2016, pp. 122
- Abstract: “Photometric observations of main-belt asteroid 1654 Bojeva were made over six nights during 2015 October and November. Remote observations were made using iTelescope Observatory (MPC H06) in Mayhill, New Mexico. Lightcurve analysis using MPO Canopus found a possible rotation period of 10.5559 ± 0.0137 h with an amplitude of 0.27 mag.”

SKILLS

- Bilingual: Fluent in Arabic and English