

Essay Title: Mind the Gap.

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Interviewee: Dr. Mayowa Awe

In the grand symphony of mathematical progress, where theorems unravel and conjectures find their simplicity, the theatres of academia resonate with stories that all started with great mentors who introduced talented minds to science. This essay delves not into the life of a pupil, but the creation story of an instrumental mentor for the new generation of scientists. The halls of Mathematics buildings have not stayed empty because of people like Dr. Mayowa Awe.

It began when tears dripped down young Mayowa's eyes as her uncle swore beside her quizzing her on her mathematics homework. The year was unimportant and the topic irrelevant; all that mattered to our Nigerian girl was she HATED MATH. She checked in this baggage as her family flew to the US when she was seven. Fast forward several years, as college applications rolled around, pressure mounted on Moyowa as her parents were not willing to pay for her to go to college without an idea of what career she was going to pursue.

"Do what you're good at,"

"Use your skills." Her transcript unhelpfully proclaimed that she could succeed in just about any profession. She found solace in a friend's suggestion to pursue her passion. Armed with a marker, she embarked on a journey of teaching, accosting neighbors and peers alike, eventually envisioning herself as a high school mathematics teacher. The prestigious Richard Greene Scholarship granted her a full ride to the University of Texas in Arlington, setting the stage for her academic odyssey.

Mayowa's university years were marked by community building within the African Students Association and the Association of Women in Mathematics, where she served as the president of the latter. Graduating to graduate studies, Dr. Awe delved into projects that seemingly contrasted: mathematical modeling of infectious diseases and mathematics education. These were separate interests, yet she recognized the potential for overlap, especially in teaching strategies and enhancing the level of discourse in elementary math. Her dissertation delved into modeling the spread of the Zika virus, showcasing her pioneering work in incorporating Invasion Reproductive Numbers (IRNs) in discrete-time models.

The transition from academia to the aerospace realm at Lockheed Martin unveiled a new frontier for Dr. Awe. Engaging in classified projects with the Department of Defense, she navigated the complex landscape of data science application. The most important issue lay in communicating this information to officials higher up so they could make split-second decisions before a program turned red. She only then noticed the gap between mathematics and the community.

In 2021, the National Science and Technology Medals Foundation beckoned, introducing Dr. Mayowa Awe to the directorship of the InSTEM program. For her, it was not just an opportunity but a calling to mentor the next generation of mathematicians. In underserved schools, she leads cohorts of 15-30 students, offering one-on-one mentorship and advocating for holistic

wellness. Her dedication to mentorship stems from a profound belief that excellence transcends GPA, touching upon issues like imposter syndrome and identity.

Recognizing the dearth of mental health focus within the mathematical realm, Dr. Awe endeavors to reshape this narrative through inSTEM. Her own experiences as a STEM student in an underrepresented community guide her in recommending the support she once sought. Every day, she learns from the passionate students in inSTEM, grounding herself in the pursuit of not just academic excellence but holistic well-being.

Dr. Awe's commitment extends beyond mentorship; she perceives a gap in the teaching of mathematics. To bridge this divide, she volunteers with a non-profit conducting a STEAM summer camp for African American middle school boys. Rejecting the conventional 'shove the content, shut the practice' approach, she showcases the practical applications of algorithms, aiming to ignite curiosity and demonstrate that mathematics is more than conjectures—it is a powerful force in industry.

In the eyes of Dr. Awe, the role of a woman in mathematics may not conform to traditional expectations, but its significance is undeniable. Her life's work revolves around paving the way for the mathematicians of the next generation, sparing them the battles she fought. Mathematics advances because of individuals like Dr. Awe—dedicated mentors who nurture the genius within, ensuring that the symphony of progress continues to resonate through the ages.

About the Author:

My name is Jesuferanmi Ayanlade. I am a freshman at Dartmouth College from Nigeria studying Biology and Public Policy. I am passionate about nurturing the next generation of scientific greats from underrepresented communities and underresourced countries. I love reading speculative fiction and I hope to get involved in education policy back home after graduation.