

Dr Saima Salehjee

Lecturer of Science Education at the University of Strathclyde

Dr Salehjee is a woman-of-colour in STEM, working in the Higher Education sector. Saima is the only Muslim and South Asian woman in her immediate working environment.



Tell us a little about yourself.

I am responsible for teaching and research work, emphasising STEM (science, technology, engineering and mathematics) education. My research focuses on science literacy, public understanding of science, science identity and identity transformations over a lifespan of individuals from different ethnic, religious and sexual backgrounds. My interest in exploring the multiplicity and social power dynamics within and among STEM education and professional sectors began through several conversations with my PhD supervisor on my positionality and interest in Science Education research. These conversations included discussions around why some people continue with the study of STEM or non-STEM education after the compulsory age of school science, who are recognised as scientists and why some people are misrecognised as scientists or even as scientific people. These conversations led me to spend the rest of my PhD and professional life exploring the multiplicity among multi-aged women, mainly from racially minoritised UK-based communities, including the role exclusion, misrecognition and privilege play in shaping women's science identities and ambitions to recognise themselves as scientists and/or a scientific person (or not).

Why did you decide on a career in science?



My love of science was discovered quite early in life, as early as age six, when a plastic stencil for drawing experiment diagrams caught my eye, that, and a weekly science magazine including science-fiction based stories and cartoons. This early interest in science grew over time and was supported and reinforced by a series of small nudges in my life. These nudges have included good examination grades, TV science-based programmes (for example, a devotee of Dr Who and science shows on the National Geographic channel), and some science teachers. Of course, along the way, there were also some negative experiences, non-scientist parents, some not-so-great science teachers, and lower examination grades than wanted. But still, the positives outweighed the negatives, and I carried on with my Science Education based studies and career.

What qualifications and experience do you have?

My qualifications include a Master's degree in Biochemistry gained in 2004, with a specialisation in Neuropharmacology from University of Karachi, Pakistan; then, I started teaching O Level Biology and Chemistry classes in a secondary school. Later after four years of school teaching, I moved to London for a Master's degree in Education in 2009, followed by a PhD in Science Education from Brunel University London in 2013. While in London, I taught science to secondary school pupils and taught undergraduate students from STEM and non-STEM departments. Just after my PhD graduation in 2017, I joined the University of Strathclyde as a lecturer.

What does your typical day involve?

There is no typical working day for me, but overall, my working days involve teaching, research, leadership and knowledge exchange roles. These four main roles involve face-to-face or online



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interactions with students, staff and the wider education community at the fore-front through teaching, supervising dissertation and thesis, academic writing and publications, supporting students and staff via emails, conducting meetings, doing administration jobs and leading a course. For example, I contribute to, and lead a team, across some undergraduate and postgraduate courses within the university's School of Education. This includes our teacher training courses (PGDE) which involve science lectures, tutorials and workshops for some 100+ primary and secondary student teachers every year. Moreover, currently, I supervise six national or international doctoral students who are interested in the areas of Science Education and Educational Leadership.

What challenges have you faced to get to where you are now?

I used to wrestle with several challenging questions during my academic and professional life, for example, how will I write an academic essay as a scientist? How will I adjust to a UK's education and professional systems while being an international student/immigrant? At some point, I realised I was trying to fit into educational and professional settings where I visibly looked or felt different. But later, I realised that I don't need to 'fit in'; instead, my unique identity, visible and invisible, will support the workplace and equally help me progress professionally.

How has your career developed since you started working?



My career developed from being a school science teacher to teaching in the university as a Graduate Teacher Assistant, then achieving a permanent lecturer post in a Scottish University. After attaining the lecturer post, I moved up the promotion scale and later took on the STEM course leader's role. Building from my doctorate work, I have authored books, articles and reports and have emerged as an independent researcher. Moreover, over the years, I have travelled as a researcher to different countries such as Australia and Thailand, which has developed my understanding of different educational systems, teaching and learning aims and best practices.

Further, I developed partnerships, academic and knowledge exchange collaborations with national and international researchers, scholars and school teachers to follow my ambition of encouraging more women from minority groups to study and pursue a career in STEM. In addition, I have been part of the Advance Higher Education's Anti-Racist Curriculum project to prepare resources for Scotland-wide university staff members and promote the Anti-Racist pedagogy-based professional development (CPD) series in my current institution.

What are you most proud of in your career?

I am very proud of being a first-in-the family PhD, publishing two books to promote Science Education in educational and professional settings and people's everyday lives. Moreover, completing two funded research projects, I am incredibly proud of the one that motivated several school-going students to acknowledge that science is not a commodity of certain elite people. Instead, it is for everyone and anyone to become a 'science person' whether they want to become a scientist or not and whether (or not) their visible characteristics resemble the societally prescribed characteristics of a scientist, i.e., of a White middle-class man.

What one piece of advice would you give to someone seeking a career in chemistry?

My advice would be to follow a career that supports your aspirations and self-identifications of your own abilities, instead of pursuing a career that society acknowledges and encourages you to follow based on their judgement of whether you can become a chemist (or not).

