

EMANUELE GIORGI ON TEACHING STATISTICS IN AFRICA

My first visit to Africa was in August 2012. It was also the start of my career as a statistician working on the spatial epidemiology of tropical diseases. During my field experience, I joined a team of health workers and visited some of the most remote villages in the Chikwawa district of southern Malawi.

In 2016, I was presented with an opportunity to teach at the African Institute for Mathematical Sciences (AIMS), an education and research institute with several centres across Africa, whose focus is on teaching applied mathematics and statistics. Teachers from both local and international institutes are invited to deliver master's-level courses over a period of three weeks. My first teaching assignment was in Tanzania. Since then, I have repeated this experience in Ghana and again in Tanzania in 2017.

In a typical AIMS class, there are between 25 and 50 students from different African countries. There is a high degree of cultural and linguistic diversity, but most students speak English. Communication was a bit more difficult, but never an impediment, with those who came from French- and Arabic-speaking countries.

The heat was the hardest thing to contend with. I cannot recall a single day where the temperature was not above 30°C. One of the biggest challenges was to adapt my teaching style to a class where students have very different educational backgrounds and levels of preparation in statistics. Flexibility in the programme was particularly important. Sticking rigidly to a predefined curriculum would not have been useful but possibly harmful to the motivation of the students. As I wanted all of my students to succeed, I unwittingly and wrongly set the bar a bit too low at times. Thankfully, with the help of tutors and other more senior lecturers, I was able to motivate the class with challenging problems while not discouraging them from their studies.

I learnt that external feedback is one of the most effective tools for reflection. At AIMS, the most direct form of feedback was provided by the students, who were never shy in showing any lack of understanding during the lectures, and from AIMS tutors, who in most cases were former AIMS students so knew very well how to interpret the mood of the class. I also recorded some of my lectures and sent video clips to colleagues in Lancaster for further feedback. Having an outside perspective was extremely useful and helped me to refine my teaching style more effectively. My AIMS experience taught me that, as lecturers, we have the potential to inspire students to find their own path in life. The students I met at AIMS were all highly motivated individuals, and I strongly believe that through their contact and interaction with the lecturers they were better able to understand the ways in which statistics can make a difference to their lives. What I learnt from the experience was that it did not matter how much material I was able to cover during the three weeks of the course. What really mattered was my ability to successfully convey at least one statistical idea, and to show how this could help solve a real-world problem.