Interview with Statistics Professor Alan Elliott, Southern Methodist University

Alan Elliott is Director of the Statistical Consulting Center in the Department of Statistical Science at Southern Methodist University (SMU). He was first introduced to SAS® as a graduate student, and has taught courses using SAS for more than 20 years. Elliott is co-author of the book *SAS Essentials: Mastering SAS for Data Analytics, Second Edition*.

Why do you choose to teach with SAS?

In preparing practicing statisticians for the workplace, we find that knowledge of SAS and experience using it in real-world consulting projects is a real advantage in their job hunt, as well as in their career.

You've been teaching SAS in the classroom for more than 20 years. What changes have you seen during that time?

When I first started, I was at a medical school. Mostly I was teaching short-term, informal courses to researchers who wanted to use SAS. They were applied courses on how to do PROCS related to medical research. That went on for the first 10 years I taught. Then we began a master's program in clinical science preparing MDs and PhDs in the medical field to do research, and the courses started including more detailed programming topics centering mostly on the DATA step.

Now I'm at SMU teaching in the Applied Master's in Statistics and Data Analytics program. I teach two three-hour courses in the master's program. The first course covers SAS basics, preparing students for the Base SAS exam, which we encourage them to take after the course. And I also teach an advanced course that prepares the students for the SAS Certified Advanced Programmer test. Most of my current students are getting a master's or PhD in our Statistical Science department, but we also have a number of students in economics, education, psychology and a lot of disciplines at the university beyond our department.
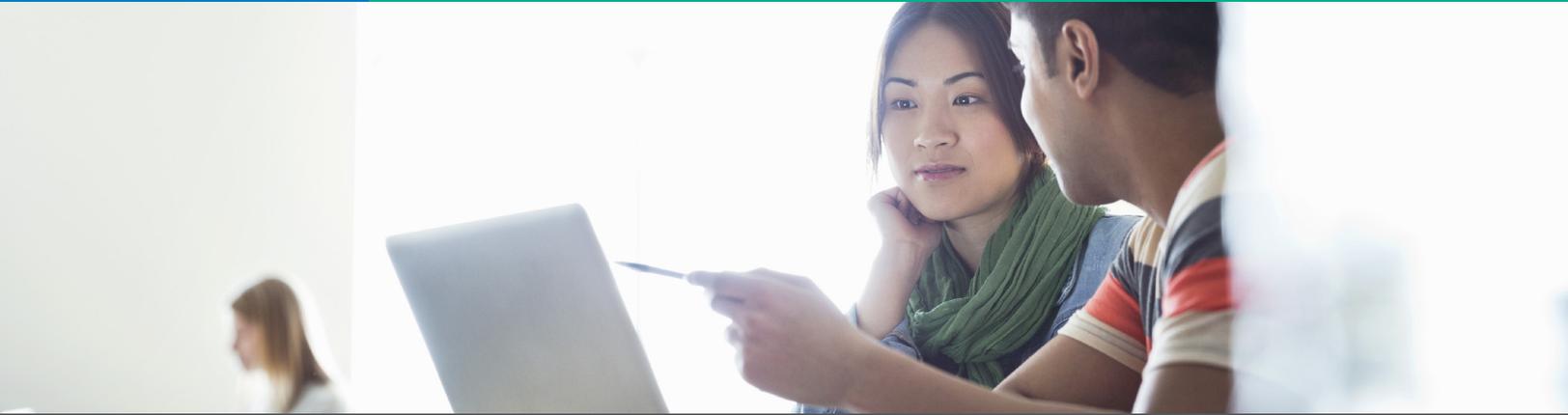
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How do you think students benefit from learning about analytics and SAS?

The prospect of good jobs in this area is a major influencer in terms of pursuing a data analytics degree. Our grad students go into banking, pharmaceutical, medical research, and a wide variety of careers. We also try to locate summer internships for our students. We've had students work for Fortune 500 companies in food technology research and development, insurance, business forecasting, oil and gas, pharmaceutical, banking and health, and medical research.

What advice would you give students or adult learners interested in pursuing an analytics career?

First, they need to understand the statistical reasoning behind data analytics, and then learn SAS to implement this knowledge. In the data analytics master's program at SMU, students need to know not just how you run PROC LOGISTIC, but why you run it. We try to pay attention to assumptions underlying why you use certain procedures, and go behind the scenes to help students understand the background and theory about why these data analytics tools work.