

Liz Gehr, PhD — Human Factors Psychologist

PILOT TESTING A CAREER IN HUMAN FACTORS

A doctorate in psychology can help any business thrive.

Just ask Liz Gehr, PhD.

She chose to apply her background in experimental psychology to a career in human factors research. Human factors experts apply the principles of psychology to product design and workplace environments in an effort to increase usability, maximize productivity and minimize safety issues.

"I never saw an academic career as the holy grail of graduate training in psychology," says Gehr. "As I approached the end of my training, I put myself on the non-academic job market."

Working at Sprint's headquarters in Overland Park, Kansas, Gehr carved herself a niche in survey design, coordinating the design of the company's employee surveys to help measure and understand performance and productivity.

"While my training was not in survey design, from my knowledge of general research design and analysis, I knew how to help the team get meaningful data. So I took it upon myself to learn all I could about survey design. I was able to market myself within the corporation as a knowledgeable source to help in survey design and analysis," she says.

NEXT DESTINATION: BOEING'S AIR FORCE RESEARCH LABORATORY

Gehr applied her human factors experience in her next position, at Boeing Co. There, she began as a human factors design specialist working at the Air Force Research Laboratory, Warfighter Readiness Research Division, in Mesa, Arizona. She conducted research the military needed to make sure that coalitions thrived and international missions were successful, specifically studying more effective ways of measuring pilot training.

Much of her work focused on exercises where U.S. aircraft simulators were networked with simulators in other countries being flown by their pilots.

"Using a flight simulator, we were training our military to think and maneuver as they do when deployed," says Gehr. "It was a wonderful opportunity to put my research, data analysis and writing skills to use for a very real-world problem."

TRAINING THE NEXT GENERATION OF PILOTS

Gehr's current work at Boeing focuses on developing advanced training methods designed to address a considerable challenge: trying to figure out how to train a pilot on next-generation aircraft that won't be in the field for another 10 to 15 years.

"Look at a 10-year-old today and imagine them stepping into the cockpit of a powerful jet for the first time. How can we prepare them effectively and efficiently? How do we incorporate the latest technology into their training? How can we personalize their training so they get the right training at the right time in the right format? These are questions I get to think about every day."

It's not exactly the career in psychological science that she anticipated when she entered the non-academic job market.

"The research questions I tackle now are more complex, challenging, real-world and rewarding," she says.



"Military training budgets are being squeezed, so we are trying to figure out how to train service members better, quicker and with less need for retraining."

HUMAN FACTORS AND ENGINEERING PSYCHOLOGY

Human factors and engineering psychologists combine technology with psychology to improve the relationship between people and machines, which can enhance performance, productivity and safety. They use psychological science to guide the designs of products, systems and devices we use every day.

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