Targeted Infusion Grant: Developing an Experimental Psychology Teaching and Research Laboratory at Tennessee State University

Funded by: National Science Foundation, HBCU-Undergraduate Program: Targeted Infusion Project

Award: $145,888.00

Duration: January 1, 2009 — December 31, 2010

Project Contact: Dr. Kiesa Kelly
kkelly5@tnstate.edu
(615) 963-5157

INVESTIGATORS

Kiesa Kelly, Ph.D.
Dr. Kiesa Kelly currently serves as assistant professor in the Department of Psychology, College of Education at Tennessee State University.

Linda Redmon Guthrie, Ph.D.
Dr. Linda Redmon Guthrie currently serves as associate professor and head of the Department of Psychology, College of Education at Tennessee State University.

SUMMARY

The National Science Foundation (NSF) selected Tennessee State University (TSU) for a competitive federal grant to equip a pilot experimental psychology laboratory with psycho-physiological technology that enables students to study the interaction between human psychology and physiology.

Funding for the project emanated from the intersection of an NSF Targeted Infusion program within HBCU-UP and a successful TSU funded proposal entitled, "Development of an Experimental Psychology Teaching and Research Laboratory at Tennessee State University" created by Dr. Kiesa Kelly with the leadership of Dr. Linda Guthrie of the TSU Psychology Department. Such funding commenced in January 2009 with $145,888, and the proceeds were used to convert an existing classroom into a high-tech Experimental Psychology Laboratory. NSF established the Historically Black Colleges and Universities-Undergraduate Program (HBCU-UP) in 2000 to assist HBCUs to enhance and enrich such science, technology, engineering, and mathematics (STEM) programs. NSF "targeted infusion" channels grant funds to specific academic research infrastructure within the STEM fields in order to implement the broad goals of HBCU-UP.

The TSU psychology laboratory has acquired, during the initial phase, psychophysiology instruments, an electroencephalogram (EEG) machine which cost $85,000, and a computer laboratory. The EEG permits students to engage research participants in various cognitive exercises while using computers to record electrical activity within the brain via sensors placed on the surface of the scalp. Psychophysiology instruments are used to monitor and measure heart rate and blood pressure. This experimental psychology laboratory is complemented by both a computer laboratory and a databank of psychology and neuropsychology tests for IQ, language, and memory.

Establishing this psychology laboratory assists with modernizing the infrastructure of the Psychology Department and provides undergraduate students with significantly more opportunities to engage in research, both through their coursework and in collaboration with faculty who will use the laboratory for their own research. Improved performance of psychology majors on the Major Field Test, particularly in the areas related to physiological, cognitive, and experimental psychology is anticipated. This laboratory is designed to be a comprehensive, experimental psychology facility slated for incorporation into the TSU psychology curriculum, which will be expanded to include new courses - such as Brain Waves and Cognition - to train students on the acquired technology. This innovation is designed to catapult psychology majors into doctoral programs.
Kiesa Kelly, Ph.D.
Assistant Professor, Psychology

Dr. Kiesa Kelly is a licensed clinical neuropsychologist with a Ph.D. in Clinical Psychology from Rosalind Franklin University of Medicine and Science in North Chicago, Illinois, and a B.A. in Neuroscience and Psychology from Bowdoin College in Brunswick, Maine. She completed a postdoctoral fellowship funded by the National Institutes of Health at the University of Florida and Vanderbilt University, which included research and neuropsychological assessments on children with Attention Deficit/Hyperactivity Disorder (AD/HD). Currently an Assistant Professor in the Department of Psychology at Tennessee State University (TSU), Dr. Kelly has held this position since 2006. In 2008, she was awarded a grant from the National Science Foundation to build an experimental psychology laboratory at TSU for the purpose of providing undergraduate students with greater research opportunities with the goal of increasing their pursuit of doctoral degrees. Dr. Kelly has a strong commitment to excellence in teaching and is a member of the American Psychological Association (APA) Teaching of Psychology division.

Linda Redmon Guthrie, Ph.D.
Associate Professor and Head, Psychology

Dr. Linda Redmon Guthrie received a Ph.D. in Counseling Psychology from Tennessee State University (TSU) in 2000 and joined the TSU Psychology Department in 2001 in a tenure track position. She is a member of Divisions 2, 17, 35 and 38 of the American Psychological Association and is serving a 3-year term on the Counseling Psychology (Division 17) Program Committee for the Annual American Psychological Association (APA) Conference. Areas of research which have been published and presented at international and national conferences include ethics in psychology, resiliency and well-being, Academic Audit as a continuous improvement model, and teaching of psychology issues (e.g., disrespect in the classroom and acceptable reasons for class non-attendance). Recently, Dr. Guthrie has been invited to participate in a symposium for the 2011 European Congress of Psychology addressing Constructivist Practices in Teaching and Learning in Psychology. She has been an active member of the Graduate School Council, serves as a mentor for the Presidential Fellows Program, has served as an Academic Auditor for the Tennessee Board of Regents (TBR), and has served as a Counseling Psychology Site Team Visitor for APA accreditation.