Abstract

The investment in agricultural research has led substantial benefit in the improvement of crop productivity. This study examines how non-cognitive traits independently and interactively predict the learning success of undergraduate STEM students. The course variables focus on the gain of knowledge, critical thinking skills, student grit, and growth mindset. Quantitative data was collected after one semester from first-year students attending the college for the first time in fall. Pre- and post-test levels of grit and growth mindset were measured by Grit scale and Mindset test, respectfully. The purpose of this study was to determine the short-term and long-term effects of college learning strategies on student success in Florida. The results demonstrate that growth mindset is significant predictor of UG success. The current status of this project together with OER (Open Educational Resources) will be presented including the further research results.

Brief bio of Dr. G. Hacisalihoglu

G. Hacisalihoglu, PhD, is a Professor of Biology & Plant Biology at Florida A&M University, Tallahassee, Florida where he teaches introductory and advanced biological sciences courses including General Biology, Plant Morphology, and Scientist Life Skills. He received his PhD at Cornell University in Plant Biology / Genetics. Dr. Hacisalihoglu maintains an active research agenda that focuses on food crop improvement, dietary nutrients deficiency, seed composition, and biology education research. He authored numerous scientific publications (47+ articles, 100+conference presentations, invited talks and media coverage) and two books. He is the recipient of prestigious teaching and research awards including FAMU Teaching Innovation Award, FAMU Advanced Teacher of the Year Award, FAMU Teacher of the Year Award, FAMU Research Excellent Award, and Best Professor of the Arts & Sciences. He is a member of American Society of Plant Biologists. He was a visiting fellow at Michigan State University, Florida State University, Cornell University, USDA, and University of Florida. He has Fulbright Specialist Award to JAPAN at University of Tokyo as an expert consultant in Plant Biology. Dr. G. Hacisalihoglu has authored 2 other textbooks, From Growing to Biology: Plants 1e and Plant Biology Concepts and Laboratory Manual. Learn more at https://www.linkedin.com/in/hacis/