TEAM RESEARCH SYMPOSIUM

LIGHTNING PRESENTATIONS:
BEST PRACTICES

Using a Multidisciplinary Approach to Assessing Basic Needs Insecurity in Higher Education

Lead Presenter: Heather Mechler, PhD
Director, Office of Institutional Analytics
Co-Presenter: Kathryn Coakley, PhD, RDN
Assistant Professor, Nutrition and Dietetics

PUBLICATION LINK:
https://basicneeds.unm.edu/basic-needs-at-unm-2020-research-report.pdf

BIOGRAPHY:
Heather Mechler currently serves as the Director of the Office of Institutional Analytics at UNM, a position she has held since 2016. In this role, she manages a team of analysts and data scientists who explore data pertaining to student outcomes and student success. Dr. Mechler’s areas of focus in the field of institutional research include predictive analytics, data visualization, equity in data science, and basic needs security in higher education. She holds a Ph.D. in Educational Psychology with an emphasis on measurement and human development from the University of Alabama. Her academic research focuses on the role of moral judgment development in influencing civic engagement and political beliefs.

PRESENTATION DESCRIPTION:
The Basic Needs Research Project is a longitudinal study collecting data on and researching solutions to food and housing insecurity among UNM students. The sub-goals include 1) assessing the prevalence of food and housing insecurity among our student body at all levels; 2) understanding how rates of basic needs insecurity differ among different categories of students including URM, LGBTQIA, and international students; 3) assessing the academic outcomes of basic needs insecure students and identifying disparities. These quantitative data along with data from focus groups have provided insight into students’ lived experience of needs insecurity. This presentation will discuss our goals, share our findings thus far, and touch on the next steps in our research plan. We especially would like to invite more staff to get involved and will talk about how interested members of the UNM community can join our solutions team so that we can implement programs to ameliorate basic needs insecurity at UNM.
Experience of research interactions between laser scientists, biologists, and chemists: how to understand each other

Lead Presenter: Vitaly Gruzdev, PhD
Research Associate Professor, Department of Physics & Astronomy

Publication Links:
https://www.nature.com/articles/s41598-017-05761-8
https://ieeexplore.ieee.org/document/8435786

Biography:
Dr. Vitaly Gruzdev received MS degree in Laser and Optical Engineering from Institute of Fine Mechanics and Optics in 1994, and Ph. D. in Optics from the Federal Research Center “S. I. Vavilov State Optical Institute” (both in St. Petersburg, Russia) in 2000. In 2005 he joined the Department of Mechanical & Aerospace Engineering, University of Missouri in Columbia, Missouri, USA. Since 2018 he is an Associate Research Professor with the Department of Physics & Astronomy, UNM in Albuquerque, New Mexico, USA. His research interests are focused on theoretical description and simulations of high-intensity ultrafast laser interactions with condensed materials, and on experimental studies of ultrafast laser interactions with biological molecules for biomedical applications. He is a Co-chair of Annual SPIE Laser Damage Symposium and an Associate Editor of Optical Engineering (since 2016). In 2020 he was one of the 13 US researchers awarded with the DOD Newton Award for Transformative Ideas during the COVID-19 Pandemic.

Presentation Description:
Multi-disciplinary research requires interaction of scientists from very diverse areas. Sometimes, the science areas as so far from each other that it is not easy to find common language for team members. This challenge may crush a joint research effort at the very early stage. Based on my experience of organizing and running multidisciplinary research effort in the field of laser applications in biology, I discuss importance of finding common basis and languages for members of an interdisciplinary research team. Our effort did start with some difficulties, but finished with great success because members of our team managed to find a common scientific language.
Learning How to Work Interdisciplinarily

Lead Presenter: Sarita Cargas, PhD
Associate Professor, Honors College
Co-Presenter: Marygold Walsh-Dilley, PhD
Associate Professor, Department of Geography & Environmental Studies

BIOGRAPHY:
Sarita Cargas is an associate professor in the Honors College. Her teaching focus is on human rights and critical thinking. She is the principal investigator of the Basic Needs Research Project at UNM.

PRESENTATION DESCRIPTION:
The Basic Needs Research Project consists of two teams. One team is the data collection team and the other is the solutions team. This presentation will explain how we chose to divide into two teams and how their emphases vary. The ultimate goal of the two is the same – to reduce basic needs (food and housing) insecurity among UNM students. However, two approaches were deemed necessary to ameliorate the insecurities. One approach/team is focused on data collection – both quantitative and qualitative - and the other approach/team focuses on implementation of solutions. Both require research and evidence-based practices. However, each involves different skill sets from individual team members. The data research team requires research design and data analysis skills while the solutions team relies on activities such as surveying existing best practices at universities around the country and interpersonal skills for interacting with staff and administrators at UNM. This presentation will discuss the decisions we faced as a team of researchers coming from very different disciplines. We will also share some of the frustrations we have faced and how we have (mostly) overcome them in our discovery of best practices!
Overcoming Common Pitfalls in Teams: Three Tips for Unlocking Effective Teamwork

Lead Presenter: Trevor Spoelma, PhD
Assistant Professor, Organizational Studies

BIOGRAPHY:
Dr. Spoelma is an Assistant Professor of Organizational Studies. He joined the faculty at the Anderson School of Management in 2018. He earned a Ph.D. in management from the Eller College of Management at the University of Arizona and a B.B.A. with a human resource management concentration and a B.S. in psychology from Grand Valley State University. His research interests focus on helping organizational leaders effectively manage diverse teams and reduce the negative effects of deviant and unethical workplace behavior. His teaching interests focus on organizational behavior.

PRESENTATION DESCRIPTION:
Although people with different skills, perspectives, and backgrounds are often placed in teams to generate outcomes not possible as individuals, teams often fail to reach their potential. In this presentation, I will discuss three common pitfalls of diverse teams and research-backed strategies to overcome them. Specifically, I will share how to help your team prevent downward performance spirals, get the most out members' knowledge diversity, and contain unhealthy conflict.