Holistic STEM Faculty Development: A National Research Agenda to Promote Improved Research, Teaching, Service, and Leadership Through Evidence-Based Engagement

Shannon Stefl, Sandra Linder, Cindy Lee, and Karen High

Contact authors: stemfacdev@clemson.edu

How this Project Increases Impact

Motivation
Expectations for faculty members in the 21st century are high: Early career STEM faculty are expected to establish a sustainable research trajectory, a teaching practice, and a leadership role all while pursuing tenure success. Many colleges and universities have established faculty development programs, but there remains a deficiency in holistic professional support that integrates these disparate professional activities and aligns them with desired individual and institutional goals, especially for faculty in STEM.

Purpose
This project was a workshop designed to bring together multiple stakeholders in academia, government, and industry to begin to establish a research agenda for holistic STEM faculty development.

Event Description
This workshop was held February 17-18, 2017, with 54 participants from a variety of disciplines. Attendees contributed to discussions centered around three organizing threads. These discussions served as the basis for development of the research agenda.

Project Description

Research Agenda

Thread One - Inputs
The thread of holistic faculty development inputs focuses on topics related to the characteristics of faculty members and institutions that serve as barriers or supports to the adoption and implementation of holistic STEM faculty development programs.

Thread Two - Mechanisms
The mechanisms/processes thread focuses on topics related to the actual implementation of STEM faculty development and we consider the potential models or structures of STEM faculty development that are currently in place or conceptualized in theory.

Thread Three - Outputs
The thread of outputs focuses on how to best understand the influence of STEM faculty development on identity in relation to faculty development, and how faculty development influences overall faculty wellbeing, career satisfaction, work-life balance, etc.

Project Evaluation (available on website https://www.clemson.edu/cecas/departments/ese/stemfacdev/)
The project team hired an external evaluator (Cindy Roper). She was brought on early in the project conceptualization phase to ensure activities aligned with project goals. Specific evaluation and observation occurred at the following stages:

- Participant application and selection
- Pre-workshop communication by participants and event planning
- Workshop event implementation
- Post workshop participant satisfaction and research agenda dissemination

Project Products (available on website https://www.clemson.edu/cecas/departments/ese/stemfacdev/)


Future Plans

- Finalize the research agenda
- Seek further community feedback
- Disseminate the agenda through the website, professional societies, publications

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