Expectations and Experience of Mentoring in an Undergraduate Summer Research Internship

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Introduction

The Applied Plant System Experiential Learning Program (APS) took place at the University of Nebraska—Lincoln during the summer of 2017. A 24-item survey developed by Retallick and Pate (2009) was administered to the mentors at the beginning of the internship and to the interns at the beginning and end. Data from the first cohort of six students who completed the program in 2017, is being used to decide how well the survey, together with weekly journal entries, met project evaluation needs. This presentation will focus on four items that reveal interesting differences between interns’ perceptions at the beginning and end of the program, and between interns and mentors.

Program structure and mentees

Internship Experience

• Custom internships in university, industry, or federal lab settings
• Skill development in the process of science and decision making

Weekly Think Tank Sessions

• Moving from task to connection
• Team presentations, activities, and exchange of experiences
• Skill development in systems thinking and team building

Science & Literary Extension

• Translational experience for outreach

• Contributing to science literacy

Coupled Training

Mentor
Keenan Amundsen
University of Nebraska—Lincoln
Virginia Jin
USDA-ARS
Dirac Twidwell
University of Nebraska—Lincoln
Lisa Durso
USDA-ARS
Jess Spotanski
Midwest Research
Laura Thompson
University of Nebraska—Lincoln

Mentee
Alyssa Converse
University of Nebraska—Lincoln
Katja Dueing
University of Nebraska—Lincoln
Phoebe Hartvigsen
State University of NY, Genesco
Maryllyn Cadena
University of Texas El-Paso
Elizabeth Fletcher
Virginia Tech
Jackson Stansell
Harvard University

Survey responses

Mentee responses were not different pre & post, but mentee responses were different from mentor responses, concerning mentor characteristics.

1. Mentor as a source of information
   • Pre: A mentor is an information sources.
   • Post: My mentor was an information source.

2. The role of mentors
   • Pre: Mentors play many roles.
   • Post: My mentors played many roles.

3. Mentor strategies
   • Pre: A mentor demonstrates strategies for accomplishing goals.
   • Post: My mentor demonstrated strategies for accomplishing goals.

4. Mentoring process
   • Pre: My mentor and I exchange information.
   • Post: My mentor and I exchanged information.

Mentee responses were not different pre & post, but mentee responses were different from mentor responses, concerning mentee/mentor relationships.

1. Mentor influenced professional identity
   • Pre: A mentor assists the student in developing a sense of professional identity.
   • Post: My mentor helped me develop a sense of professional identity.

2. Mentor job skills
   • Pre: Mentors demonstrate outstanding job skills.
   • Post: My mentor demonstrated outstanding job skills.

3. Role-specific model
   • Pre: A mentor is a role-specific model in the discipline.
   • Post: My mentor was a role-specific model in the discipline.

4. Student role in mentorship
   • Pre: The student should lead the mentorship process.
   • Post: I was allowed to lead the mentorship process.

Conclusions

• The summer internship did not change mentee mentorship perceptions.
  • Because mentees were selected from a pool of talented applicants, their perception of mentorship may have been influenced by previous mentorship experiences.
  • Mentees and mentors did not always agree concerning the role of mentors in mentorship and mentee/mentor relationships.
  • Mentors seem to expect more initiative from mentees in mentee/mentor relationships while mentees may expect to be led or inspired.

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