Participants' Perceived Importance and Application of Mentoring@Purdue Program Seminars and Workshops

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• Graduate Program Completion Rates
  • Forty-one percent of master’s students will complete their program in two years (Kent, 2013)
  • Black and Latino students constituted 7.6% of doctoral degree recipients (Merolla & Serpe, 2013)
  • Within seven years, 48% of Hispanic/Latino(a) and 40% of Black doctoral students completed their program (Sowell, Allum & Okahana, 2015)
  • Seven year attrition rates for Hispanic/Latino(a) and Black doctoral students are at 38% and 35% respectively (Sowell et al., 2015)

• Changing Demographics (Gasman & Conrad, 2013)
  • Between 1980-2010
    – Hispanic/Latino(a) population: +246%
    – American Indians/Native Alaskans population: +106%
    – African American population: +50%
WOMEN AND URM BARRIERS FOR SUCCESS

• Campus Climate (Peterson & Spencer, 1990)
  – Minority students report hostile, “chilly,” unwelcome, uncomfortable environments (Nugent et al., 2004).
  – Poor social adjustment

• Sense of Belonging (Strayhorn, 2012)
  • Basic human need
  • Perceived social support on campus
  • Feeling of connectedness
  • Feeling of mattering
MENTORING AS A TOOL TO PROMOTE ACADEMIC SUCCESS
MENTORING

• Senior or more experienced person (faculty or staff) formulating a relationship with a junior or less experienced person (graduate student) for professional and/or academic development (Baker, 2007; Campbell & Campbell, 1997)

• Mentoring positively affects (Kendricks et al., 2013; Campbell & Campbell 1997)
  • GPA
  • Retention
  • Completion rate

• Attributes of mentoring (Berk et al., 2005)
  • Focuses on achievement or acquisition of knowledge
  • Emotional & psychological support
  • Reciprocal relationship
  • Personal
  • Emphasizes the mentor’s greater experience, influence, and achievements within an organization
MENTORING URM AND WOMEN GRADUATE STUDENTS

- Mentors assist URM graduate students with adjustments to academic and nonacademic aspects of graduate education (Brown, Davis & McClendon, 1999)
- Mentoring systematically addresses causes of culturally diverse student attrition and delayed graduation (Dickey, 1996)
  - Promoting greater student-faculty contact, communication and understanding
  - Encouraging the use of university resources for nonacademic problems
  - Intervention with academic difficulties
  - Creating a culturally validating psychosocial climate
- Mentors should be encouraged to discuss discriminatory and racial challenges experienced by URM graduate students (Baker, 2007)
MENTORING IN HIGHER EDUCATION

- Mentoring relationships that occur in the institutional environment impact (Baker, 2007)
  - Faculty development
  - Student learning
  - Student personal development

- Predominantly white institutions should be more intentional about providing mentoring programs that addresses (Tillman, 2001)
  - Social needs
  - Cultural needs
  - Emotional needs
  - Professional needs
NEED FOR A MENTORING PROGRAM

- Mentoring is one of the most effective methods to increase URM participation in STEM fields

- URMs are less likely to enter and remain in STEM fields when they lack mentors and role models

- Before we can facilitate mentoring dyads, there is a need to create workshops and seminars that explores topics and provides skills for mentoring URM graduate students
• Most mentors who are positioned to provide mentoring have not participated in formal training in mentoring techniques (Johnson & Ghandi, 2014)

• National survey of mentoring programs revealed only 13 of the 46 responding institutions with mentoring programs conducted some form of mentor training and workshops (Lau et al., 2016)

• Single session mentoring workshops are effective methods by which mentoring competencies can be increased (Lau et al., 2016)
Mentoring@Purdue (M@P) is an initiative aimed at increasing the persistence of minority students pursuing Agricultural and Life Sciences graduate degrees in the Purdue University College of Agriculture.

M@P aims to improve the quality of graduate education by fostering mentoring relationships between graduate students and faculty members in Agriculture and Life Sciences.

Established in 2012 with USDA/NIFA Funding.

Partnerships with:
- Historically Black Colleges and Universities
- UPenn Center for Minority-Serving Institutions

Host 1-hour training workshops, professional development, group mentoring forums, and guest lectures.
M@P SEMINARS & WORKSHOPS

- Seminars & workshops held during the Fall and Spring semesters, beginning with the Spring Semester of 2013
- Seminars & workshops scheduled to last for one hour and promoted via email, fliers and social media
- Seminars & workshops were presented in a guest lecture, interactive or panel “question and answer” format
- While the target audience of M@P is women and URM graduate students in the College of Agriculture, workshop and seminar participants included faculty, staff and graduate students from across the University
- Participants were asked to complete evaluations at the conclusion of each workshop or seminar
2013

1. Mentoring: How Do We Get Started? (N=5)
2. Cultivating Mentoring Relationships (N=15)

2014

3. Strategies for Successfully Engaging 1890 HBCUs (N=14)
4. It’s All About me: Realized and Actualized Success as a STEM Graduate Student (N=9)
5. Diversity Inclusion: Creating a Culture of Mentoring (N=9)
6. Are You Done Yet? Getting to “Yes!”: Discussing Challenges and Solutions of Graduate Degree Completion (N=10)
7. The Art of Mentoring: Promising Practices, Proven Results (N=34)
8. Speed Mentoring (N=5)
9. The Path Less Traveled: Success Stories from Women in STEM (N=16)

2015

10. What Does Mentoring Mean to Me? (N=5)
11. Strategies for Building and Maintaining your Mentoring Network (N=29)
12. In Search of Building Highly Effective Professional Relationships (N=7)
13. Strategies to Lift as You Climb (N=4)
15. Strategies for Effective Mentoring (N=30)
EVALUATION OF M@P’S SEMINAR & WORKSHOP

• M@P workshop participants were asked to evaluate the sessions attended for effectiveness using the following scale

  • I have a better understanding of why mentoring is important while advancing as a professional.¹
  • The examples shared helped me identify ideas that I could use.¹
  • I want to see more professional development activities at Purdue.
  • I want to see more mentoring activities at Purdue.
  • I plant to participate in more workshops on mentoring in the future.

• Rating
  1 = None/Not At All
  2 = A Little
  3 = Somewhat
  4 = A Lot*
  5 = Absolutely*

(¹) Denotes selected statements that addressed importance of mentoring or application
(*) Denotes successful rating scores
Two hundred and twenty-five faculty, staff, post-doc and graduate students encompassing various racial demographics attended 16 M@P seminars & workshops.

**Participants**

- N/A: 17%
- Staff: 20%
- Post-Doc: 8%
- Faculty: 14%
- Graduate Student: 41%

**Race/Ethnicity**

- N/A: 51%
- White: 32%
- Black: 7%
- Hispanic: 3%
- Asian/Pacific Islander: 4%
- Multiracial: 2%
- Native Hawaiian: 1%
FINDINGS FROM M@P SEMINAR & WORKSHOP EVALUATIONS
• Of the 16 seminars and workshops, at least 50% of the participants agreed that
  • 13 of the sessions were successful in expressing the importance of mentoring
  • 14 of the sessions were successful in providing applicable examples of mentoring strategies

• Interactive and engaging workshops were most effective in delivering content

• “Mentoring: How Do We Get Started” and “Speed Mentoring” had the highest agreement rates for application (100%)
  • Consistent with previous research that suggests graduate mentoring programs should be designed to provide close, supportive relationships between mentoring faculty and graduate students (Brown & Davis, 1999)
FINDINGS: IMPORTANCE OF MENTORING

The diagram illustrates the importance of mentoring among respondents, categorized by Workshop ID. The chart uses two scales: 4 (A Lot) and 5 (Absolutely) to measure the percentage of respondents.

- Workshop ID 1-16 shows varying percentages of respondents giving high ratings (4 and 5) for the importance of mentoring.

The data indicates a significant emphasis on mentorship among the workshop participants.
FINDINGS: PRACTICAL APPLICATION

The chart shows the percentage of respondents who applied on a scale from 4 (a lot) to 5 (absolutely). Each workshop ID (1 to 16) is represented, with the percentage of respondents indicated by the length of the black and orange segments. The orange segment represents an application rating of 5 (absolutely) and the black segment represents a rating of 4 (a lot). The percentage of respondents is indicated on the x-axis ranging from 0% to 100%.
IMPLICATIONS FOR PRACTICE

• Suggests a blueprint for mentoring training workshops and seminars at other campuses
  • Topics
  • Format

• Findings revealed mentoring is important, hence colleges should be more proactive in encouraging these relationships

• Colleges and universities should use engaging and interactive workshops when trying to teach faculty members how to best engage in mentoring relationships with women and URMs
RECOMMENDATIONS FOR FUTURE RESEARCH

• Explore workshop influence on retention and persistence rates of URMs in the college of agriculture

• Conduct focus groups with workshop participants to explore how the mentoring workshops impacted students perception of mentoring

• Explore the impact mentoring workshops have on mentors and mentees who engage in mentoring workshops in contrast with those who do not
REFERENCES


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QUESTIONS?