Effectiveness of Programming to Enhance Research Mentoring for Diverse Students

Ivy Jones | Criminal Justice and Psychology & Prof. Matt Evans | Physics and Astronomy

MOTIVATION

Mentoring diverse students has become an important topic at colleges supporting equity, diversity, and inclusion (EDI), as the methods needed for effective interactions with this population could be different from traditional research students. At the University of Wisconsin - Eau Claire, EDI is embedded in the 2025 Strategic Plan, creating a framework to enhance the efforts across the entire university. Since one of the pillars of the plan is to integrate undergraduate research and creative activity in all disciplines, and traditionally UWEC has been strong in undergraduate research, enhancing the universities efforts in diversity mentoring in the research process was prioritized through new programming efforts.

DEFINING EQUITY, DIVERSITY, AND INCLUSION

Equity – The assurance that every member of our community has equal access to the opportunities presented across our broad spectrum of offerings at UW-Eau Claire, including recruitment, hiring, enrollment, academic and non-academic programs, etc.

Diversity – The recognition and appreciation for all of the differences represented within our culture and environment – i.e. the percentages of minority students in the student body.

Inclusion – Characterized by intentionality. Intentional and ongoing efforts to ensure that individuals from diverse and targeted populations are fully able to participate in every aspect of the institution, including decision-making and leadership opportunities.

BACKGROUND

Past research pertaining to EDI research mentoring has studied the effectiveness of the training given to research mentors by measuring their understanding and awareness of EDI issues, and whether they implemented their learning into action in their research practices with research mentees (House et al., 2018; Johnson et al., 2021). In the research by House et al. two four-hour training sessions, centered on six mentoring competency domains: maintaining effective communication, aligning expectations, assessing understanding, addressing diversity, fostering independence, and promoting professional development (Pfund et al., 2013). Over 1/3rd did not describe any change in behavior, almost 50% described an awareness of diversity issues, and 14% reported an implemented change in their behavior to address diversity in their research mentoring relationships. In the research by Johnson et al. the training was a two-day workshop and showed a more positive outcome. Respondents indicated that the workshop had a lasting positive impact on their mentoring (92%), that they believe themselves to be more effective mentors (91%), and to be more aware of the need for (82%) and more competent in (82%) addressing diversity, equity, and inclusion in their mentoring. Each of these studies showed some elevation in behaviors and attitudes towards mentoring diverse students. However, research has lacked in studying the effectiveness of EDI training for mentors based on the evaluations and feedback of their mentees.

PURPOSE

In our current study, we are researching the effectiveness of a summer pilot program, EDI - Mentoring Diverse Students in Faculty/Student Collaborative Research Community of Practice (COP). It was created to help mentors improve their mentoring skills for diverse populations through readings, discussions, and reflections. This study looks at post-program implementations through surveys, and the effectiveness of the techniques presented, as measured by both the mentors and mentees. We hope that this research will offer insight into the effectiveness of the pilot program, showing the methods that may enhance mentor experiences and outcomes.

TRAINING MODULES

The online course, EDI - Mentoring Diverse Students in Faculty/Student Collaborative Research Community of Practice, was taken by 22 faculty members during the summer of 2021 over 2 months. Five topics were covered, with each containing readings, videos, and/or examples, along with a discussion board for each topic. Additionally, the cohort met via Zoom multiple times throughout the course to discuss the material in real-time.

- Getting Started: How mentoring diverse student populations is different. Understanding the mentor mentee relationship. Setting expectations.
- Understanding intersectional identities of students and how identity impacts the research and mentoring experience.
- Maintaining Effective Communication and Providing Feedback.
- Promoting Mentor Self-Efficacy: understanding imposter syndrome, social and emotional learning, supporting the whole student.
- Promoting Professional Development & Understanding Institutional and Professional barriers.

SURVEY QUESTIONS

Distinct surveys were created to be sent to mentors who participated in the pilot program Community of Practice course (COP), UWEC research mentors who had not participated in the COP, and UWEC research mentors who worked with the aforementioned mentors. The surveys ask about both research experiences and outcomes, and was developed based on the five modules within the COP, prior research questions, and other aspects of the research experience. The goal of the surveys is to analyze correlations between the mentee experience with mentors who did and did not enroll in the COP course. A sample of the linked questions can be seen below.

<table>
<thead>
<tr>
<th>Mentor</th>
<th>Mentee</th>
</tr>
</thead>
<tbody>
<tr>
<td>I established and discussed their expectations prior to the start of research</td>
<td>My mentor established and discussed their expectations prior to the start of research</td>
</tr>
<tr>
<td>I guided my mentees through the research process</td>
<td>My mentor guided me through the research process</td>
</tr>
<tr>
<td>I talked to my mentors about non-research-related topics</td>
<td>I could talk to my mentor about non-research-related topics</td>
</tr>
<tr>
<td>I would work with my mentor again</td>
<td>I would work with my mentor again</td>
</tr>
</tbody>
</table>

RECRUITMENT DIFFICULTIES

One of the expectations for the faculty members who participated in this community of practice was that they would employ a student with diversity in order to implement the material learned within the course. A brief survey of the 22 faculty members only yielded 3 student researchers. This caused a re-evaluation of the research and what data could effectively be collected.

NEXT STEPS

Due to the limited numbers of diversity mentors currently performing research with the EDI trained mentors, data collection has been put on hold as the study is reworked to find an effective way to evaluate the impact of EDI programming. Various techniques could include polling all research students, regardless of mentor training status, and evaluate whether the students researching with trained mentors scored the experience higher on topics covered by the summer pilot program.

ACKNOWLEDGMENTS

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CITATIONS