

Exploring Graduate Students' Mentoring Self-Efficacy in Holistic Mentor Training: A Qualitative Study

Dr. Karen A High, Clemson University

Karen High, Ph.D., is a professor of Engineering and Science Education (ESED) at Clemson University. Prior to Clemson, High pursued technical and educational research as a chemical engineering professor at Oklahoma State University for 24 years. She has been active in educational research and initiatives for over her entire career. High has garnered more than \$12 million in research funding, has written more than 100 peer-reviewed publications, and delivered more than 280 presentations and workshops on both chemical engineering and STEM educational research. She has mentored more than 40 graduate students and 50 undergraduate students in chemical engineering and STEM education research. Her current work focuses on student and faculty development and mentoring as well as student success in Calculus. High has held a variety of administrative positions: Clemson - Director of STEM Faculty Development Initiatives, Associate Dean for Undergraduate Studies in the College of Engineering, Computing and Applied Sciences (CECAS); Oklahoma State - Interim Director of Student Services, Coordinator of the Women in Engineering Program, and Director of the Measurement and Control Engineering Center. She currently serves as the Inaugural Director of the Clemson Center for Transformational Mentorship at Clemson.

Haleh Barmaki Brotherton, Clemson University

Haleh Barmaki Brotherton is a graduate student in the Department of Engineering and Science Education at Clemson University. Her research interests include mental health, perfectionism, self-regulation, and decision-making. Her background is in Industrial Design and Industrial Engineering.

Randi Sims, Clemson University

Randi is a current Ph.D. student in the department of Engineering and Science Education at Clemson University. Her research interests center around undergraduate research experiences using both qualitative and quantitative methodologies. Her career goals are to work as an evaluator or consultant on educationally based research projects with an emphasis on statistical analyses and big data.

Sofia Rodriguez Brewer, Clemson University

Sofia Rodriguez Brewer is a graduate student at Clemson University, pursuing an M.S. in the Department of Bioengineering and a Ph.D. in the Department of Engineering and Science Education (ESED). Sofia earned her B.S. degree in Integrated Sciences from The Pennsylvania State University. Her primary research focuses on Science, Technology, Engineering, and Mathematics (STEM) intervention programs (SIPs) at undergraduate institutions in the United States. Her research interests include mechanisms of student support for vertical transfer, program evaluation, and holistic, bi-directional mentoring practices for graduate students in STEM.

Julianne A. Wenner, Clemson University

WIP - Exploring Graduate Students' Mentoring Self-Efficacy After Participating in Holistic Mentor Training: A Qualitative Study

Abstract

This work-in-progress study examines graduate students' mentoring self-efficacy and how it is impacted by participation in a holistic mentor-training program. Grounded in Social Cognitive Career Theory, this study explores how learning environments, self-efficacy, and outcome expectations interact to shape ideas and actions related to mentoring behaviors. Our preliminary analysis of eleven semi-structured interviews with graduate students who had participated in the training program revealed three developing themes: (1) realizations about mentor identities, (2) increased confidence in their mentorship skills through active learning, and (3) recognizing mentorship skills as transferable to future career endeavors. Ongoing analysis integrates qualitative findings with quantitative measures to inform inclusive, developmentally focused mentor-training design.

Introduction

This **empirical research** paper is a **work-in-progress (WIP)** study to better understand graduate students' mentoring self-efficacy in their dual roles as mentees and mentors. Graduate education depends on mentoring relationships that advance research while supporting graduate students' well-being, belonging, and professional development (Eller et al., 2014). This intersection between mentoring and graduate student support is termed 'holistic mentoring'.

Within the holistic mentoring context, having dual roles of mentee and mentor represents distinct but intertwined practices. Being a mentee requires developing skills to seek guidance, communicate needs, and navigate power dynamics, while serving as a mentor requires engaging in practices such as providing feedback and modeling professional behaviors (Crisp & Cruz, 2009; Eller et al., 2014). Holistic mentor training intentionally integrates both roles of being a mentee and serving as a mentor by recognizing that effective mentorship demands competence in not only giving but also receiving support across relational contexts. However, many graduate students enter these relationships with limited confidence in communicating effectively and providing mentorship to peers, particularly in the absence of formal mentoring preparation (Eller et al., 2014). Drawing on Bandura's self-efficacy theory (Bandura, 1978), confidence in one's ability to engage effectively in mentoring is commonly conceptualized as *mentoring self-efficacy*. This work-in-progress highlights how graduate students begin to distinguish between supervisory roles and more relational, mentor-centered identities through participation in holistic mentor training. While research has been conducted on graduate students as mentees (Schnaiberg, 2005) and as mentors (Barker, 1997), the current study examines (1) how students perceive their roles as both mentor and mentee; and (2) how holistic training may impact graduate students' perceptions of these roles and their evolving identity. Therefore, this study

explores the following question: *What do graduate students take away from holistic mentor training and what supports their learning?*

Literature Review

Studies have shown that graduate students experience elevated levels of stress, anxiety and imposter feelings as they balance academic demands, research productivity and future career uncertainties (Evans et al., 2018; Hyun et al., 2006). These conditions highlight the essential role of mentorship in supporting students through academic, emotional, and professional uncertainties. Effective graduate mentorship not only has a direct influence on students' progress and their communication skills but also their confidence and overall well-being (Eller et al., 2014). Mentors can serve as essential sources of guidance by helping graduate students understand expectations and develop their professional identity. Furthermore, mentoring relationships often provide psychosocial support for graduate students by minimizing stress during challenging periods in graduate school (Schlemper, 2011; Schlosser & Gelso, 2001). These outcomes reinforce the importance of mentoring relationships in the graduate journey.

Mentoring self-efficacy refers to individuals' perception of their ability to mentor others, communicate effectively and support others, and reflects beliefs about one's capabilities to engage in behaviors such as effective communication with mentors/mentees, setting clear expectations, and navigating conflict (Bandura, 1978). Crucially, self-efficacy can directly influence persistence and motivation and may play a key role in how graduate students perceive and approach mentoring responsibilities (Zimmerman, 2000). Mentoring self-efficacy is often implicit in graduate education—graduate students are often expected to assume mentoring roles, such as supervising undergraduate students or mentoring peers, without any formal mentoring training (Thornton, 2024). Therefore, understanding mentoring self-efficacy can provide insights into the development of mentoring confidence, navigating mentoring challenges, and preparing for future career pathways.

Theoretical Framework

Guided by Social Cognitive Career Theory (SCCT; Lent et al., 1994; 2000), this study examines how students' learning environments and experiences interact with self-efficacy and outcome expectations to shape mentoring behaviors. SCCT emphasizes that self-efficacy arises from both internal beliefs and external supports. In this context, holistic mentoring serves as an environmental influence that may strengthen students' confidence in relational and professional domains.

Methods

This qualitative pilot study is based on eleven semi-structured interviews conducted with graduate students who had completed at least one holistic mentor training workshop at a large

public research university in the southeastern United States. The holistic mentor workshops are each 90 minutes long and explore eleven different topics such as communication, aligning expectations, developing mentorship plans, and more (Sims et al., 2026). Seven of these workshops are based on the Center for the Improvement of Mentored Experiences in Research (CIMER; The Board of Regents of the University of Wisconsin System, 2025) curriculum while four of these were developed at the university's mentoring center. These workshops are presented by trained faculty from the university's mentoring center and designed for graduate students in both STEM and non-STEM programs. Modalities for the workshops vary between in-person and online to meet the needs of a wide variety of students.

Participants were invited to participate in the study via email from a list of participants in the workshops over the past academic year. Participants were included in the study on a first-come, first-served basis when they replied to the request for an interview. No one volunteering was excluded from the study and all volunteers received a \$15 gift card for their participation. As recruitment and participation was open to all graduate students who had participated in previous workshops, the students in this study represent a variety of disciplines and stages of graduate study; three were at the master's level, eight were at the doctoral level, seven were in STEM disciplines, and four were in non-STEM disciplines.

The interviews explored perceived changes in mentoring confidence, communication strategies with advisors and mentees, and connections between these experiences and students' future professional trajectories. Each interview was conducted via Zoom and lasted approximately 30 minutes. The interviews were recorded and transcribed verbatim. Data analysis was conducted by two of the authors by first crafting a coding framework based on SCCT. The codes and their descriptions can be found in Table 1 below. The two authors then coded a transcript together to familiarize themselves with the codes. Finally, the authors coded the remaining transcripts independently and met to resolve any discrepancies.

Table 1: Coding Scheme

Code	Code Description
Identity	Identity as a mentor or mentee—emphasizing empathy, communication, and psychological safety
Supporting Training Structures	Structures within the workshops that supported learning and communication skills (e.g., role play, active discussions, etc.)
Transfer of Mentoring Skills	Professional self-efficacy in mentoring, feeling that mentoring skills could transfer to other settings in their future careers
Personal Goals	Indications of wanting to be a better mentor or mentee—showing a desire to do this
Mentoring Outcome Expectations	Thinking about what may happen if they implement certain actions around mentoring

Results

Analysis revealed three key findings that not only address what graduate students take away from holistic mentor training, but also illuminate how mentoring self-efficacy develops over time. (1) Graduate students described realizations about their identities as mentors, reflecting on what it means to mentor beyond technical supervision and emphasizing empathy, communication, and psychological safety. (2) Graduate students discussed how active learning within training sessions helped them build confidence in communicating with both advisors and mentees. (3) Graduate students linked these experiences to a forward-looking sense of professional self-efficacy, expressing that the mentoring skills they developed were not limited to academia but transferable to leadership, advising, and management roles in their future careers. These themes explored further in the following paragraphs, supported by quotes from de-identified graduate student participants.

Realizations About Mentor Identity

Graduate students in the study were cognizant of the difference between simply being a ‘supervisor’ and being a mentor. While the training encourages graduate students to think of these relationships from both sides (i.e., to consider what *their* mentor should be doing, and what *they* should be doing as a mentor), this finding relates to students’ identities as mentors and their thoughts about what they should be doing to support their mentees. For example, Liam stated:

*I kind of wanted to approach [mentoring] from a different direction instead of just being a question bank, you know. [I’m] actually figuring out ways to engage with students...learn how to **build rapport**.*

Similarly, Sheena described how she wanted to go beyond supervision to truly support her mentees:

*One thing I love to do is **help others improve themselves**, to get to know themselves better or to learn something new. So as a mentor, I’m always straightforward. I tell my mentees what I expect from them, and I tell them what they should consider. I don’t prescribe a specific path for them, but **I help them choose a path** that they can work within so that they’re able to get the best out of whatever they want to do.*

Katherine went a step further and described her mentees as ‘**teammates**,’ explaining:

*I see everyone as a **team** whether it’s the whole division or just the people I supervise. When we see ourselves as a team or family, we give grace when needed, and we also hold each other accountable when needed.*

Collectively, the participants demonstrated a change in how they thought about their identity and goals as mentors, and the training sessions provided them with tools to make them feel they could achieve those goals.

Active Learning as Supports

Part of our exploration was to learn more about what structures in the training sessions graduate students found to be the most useful. In general, participants stated that active learning strategies, such as small group discussion and responding to case studies, were the most effective in helping them think about mentorship more deeply. Temilola thought these structures were helpful so she could hear others' stories:

*I like the fact that the session was **interactive**...There was opportunity for students to be together in breakout rooms, express how you feel, your worries. Because it's really helpful, you know. Sometimes you think you are the only person going through what you're going through, but when you hear from other people your spirit is lifted. You are motivated to keep pushing, since **you are not alone in that boat**.*

Similarly, Sarina said she appreciated both the large group and small group discussions so she could have both a "variety of opinions" and also feel comfortable sharing her opinion. Many of these discussions were based on case studies, which participants also found useful. Maya, Liam, Sophia, Temilola, and Sarina all mentioned the usefulness of case studies during the trainings, as it allowed for more concrete "tips and tricks" and again, the ability to hear if others have experienced something like what was described in the scenario. As a result of these active learning components, participants noted that the training sessions overall led them to feel more confident in their abilities to tackle mentoring-related problems, increasing self-efficacy.

Transferrable Mentoring Skills

Finally, our preliminary findings indicate that many graduate students see the applicability of these mentoring skills to their lives and future careers, even if those are outside of academia. This is important to note, as it is vital we support graduate students to pursue a variety of careers. For instance, Liam shared that he would like to go into a manufacturing job after graduate school and observed:

*[There] can often be a big gap...between the staff on the floor and the staff in the office...I think learning these kinds of things [mentoring skills] now in grad school can help me...**bridge that gap** in my career...in industry.*

Similarly, Katherine commented:

*I can apply the 'mentoring up' strategies to **communicate** with my supervisors, and I can apply 'mentoring down' or 'mentoring across' strategies with my colleagues...It's useful at every level.*

And Nathan simply noted that the mentoring skills he has learned has helped him support his niece as she begins college. Although the intention of the training sessions is to support mentorship at our institution, it is encouraging to see that students are taking this knowledge to heart and seeing the application in other contexts.

Discussion

These preliminary findings offer insights into how students experience holistic mentoring training – particularly in relation to their mentor-mentee identity perceptions of the transferability of mentoring skills to future careers, and motivation to further improve their mentoring competencies. These findings suggest an identity shift through which students transition from viewing themselves primarily as mentees to gain a more intentional mentor identity. These shifts appeared to be supported by specific features of training sessions, including active learning strategies and discussion that supported mentoring self-efficacy. Furthermore, participants attached relational values to mentorship, such as family, team and accountability, when describing mentorship, indicating a move toward a more value-driven understanding of the mentoring role.

Conclusion

This work-in-progress demonstrates the importance of intentionally designed holistic mentoring training for graduate students, not only in supporting the development of a mentoring identity but also in preparing them to navigate diverse mentoring expectations across future career pathways. Rather than positioning mentoring as an implicit and informal responsibility, this study suggests that mentoring development is an important component of graduate professional development. Further, by examining how graduate students interpret and build mentoring self-efficacy, this study contributes to the understanding of how holistic mentor training can cultivate inclusive, self-aware, and confident mentoring cultures in graduate education.

Next Steps

The next phase of this work involves completing data collection by recruiting ten more graduate students who have participated in one of the workshops offered within the 2025-2026 academic year. We will also work to refine the codebook through a constant comparative strategy (Glaser, 1965), comparing new data to the data that has been collected and looking at the corpus of data as a whole. Additionally, we will keep our focus on components and tenets of SCCT as data is analyzed to ensure that students' individual beliefs and competencies are considered as well external experiences and cultures. Collectively, these results will inform the design of mentor-training programs that integrate relational, reflective, and professional dimensions of mentoring.

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