



Mentoring Guide

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What is Mentoring?

Mentoring is a reciprocal relationship between two colleagues, one of whom is usually more advanced (Laursen & Austin, 2014). Though mentoring relationships can be informal, best practices indicate that mentoring commitments be formalized with designated, regular meeting times. Mentoring relationships either follow one or a combination of three models: a mentor - protégé model, the network mentoring model, or the mutual mentoring model.

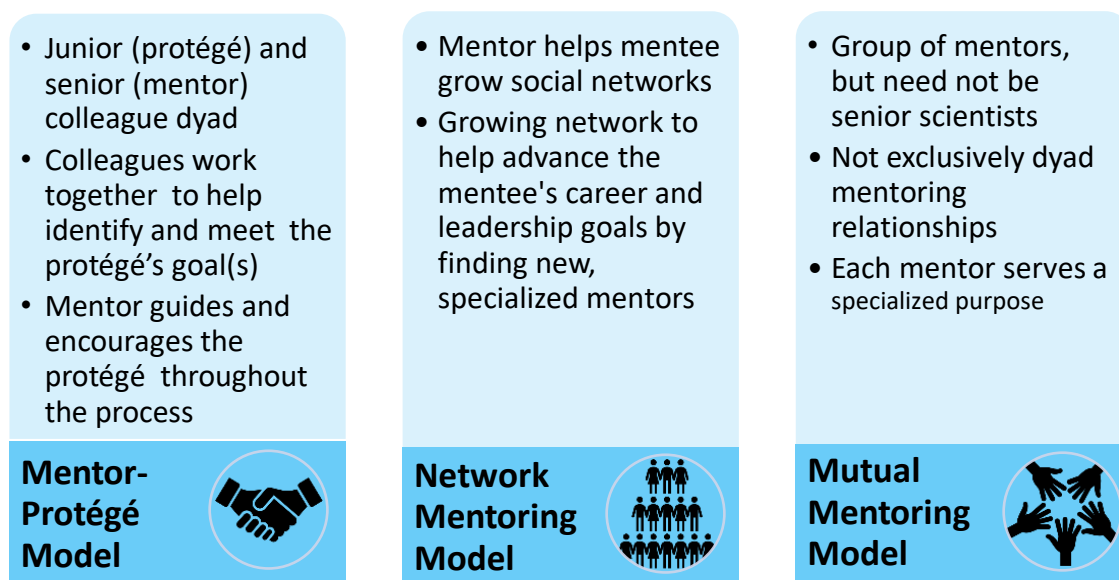
Mentor-Protégé Model

In the mentor-protégé model, the junior colleague or protégé identifies specific goals they wish to meet with the help of the senior colleague or mentor. Ideally the mentor and protégé work together to identify these goals, with the mentor guiding and encouraging the protégé throughout the mentoring relationship in order to meet the protégé's established goals (Law et al., 2014).

Network Mentoring Model

The network mentoring model emphasizes leveraging the mentor's social networks to grow the networks of the mentee. Ideally, the mentor helps the mentee identify professional networks that will advance the mentee's career and leadership goals. In doing so, mentors often facilitate meetings for the mentees with senior scientists in the mentee's area of expertise (Cho, Ramanan, & Feldman, 2011; Haines, 2003; Schrubbe, 2004). Facilitating such meetings and focusing on the mentee's goals allows the mentee to create a team of mentors that help fulfill the mentee's needs (Rockquemore, 2013).

Figure 1. Models of Mentoring



Benefits of Mentoring

Successful mentoring relationships provide benefits for the mentor, mentee, and their organizations. Mentoring programs act as a mechanism for organizational change by encouraging participants' agency. Mentors and mentees learn strategies that promote policies and practices that encourage inclusive environments, gain tools to address systemic barriers to organizational change, garner support while transitioning into leadership roles, and support for personal development (Allen et al., 2017). Mentor-mentee interactions increase the mentor's own knowledge, and in institutions that value these relationships, the mentor's standing within the organization improved. In some cases, mentoring is provided to foster research productivity, and mentoring relationships can focus on activities and roles that differ from traditional faculty scholarship (Griffin et al., 2018; National Academies of Sciences, Engineering, and Medicine, 2019). Mentees, in particular, report increased productivity, better communication skills, organizational stability, and support of cultural diversity (Allen & Eby, 2007; Allen et al., 2004; Eby & Lockwood, 2005; Ragins & Kram, 2007; Ragins & Scandura, 1999).

Mentoring and Women in STEM

Women remain underrepresented in many STEM fields in the U.S, though women earned about 50% of U.S. undergraduate STEM degrees in recent years (National Science Foundation, 2018). Disparities by gender become more apparent at higher levels, with women comprising 45% of master's degrees, 41% of doctoral degrees, and 37% of postdocs (National Science Foundation, 2018). Women with doctoral degrees in STEM fields hold 38.5% of academic doctoral positions (National Science Foundation, 2019). These disparities reach outside academia with women occupying only 26% of STEM occupations (National Science Foundation, 2019).

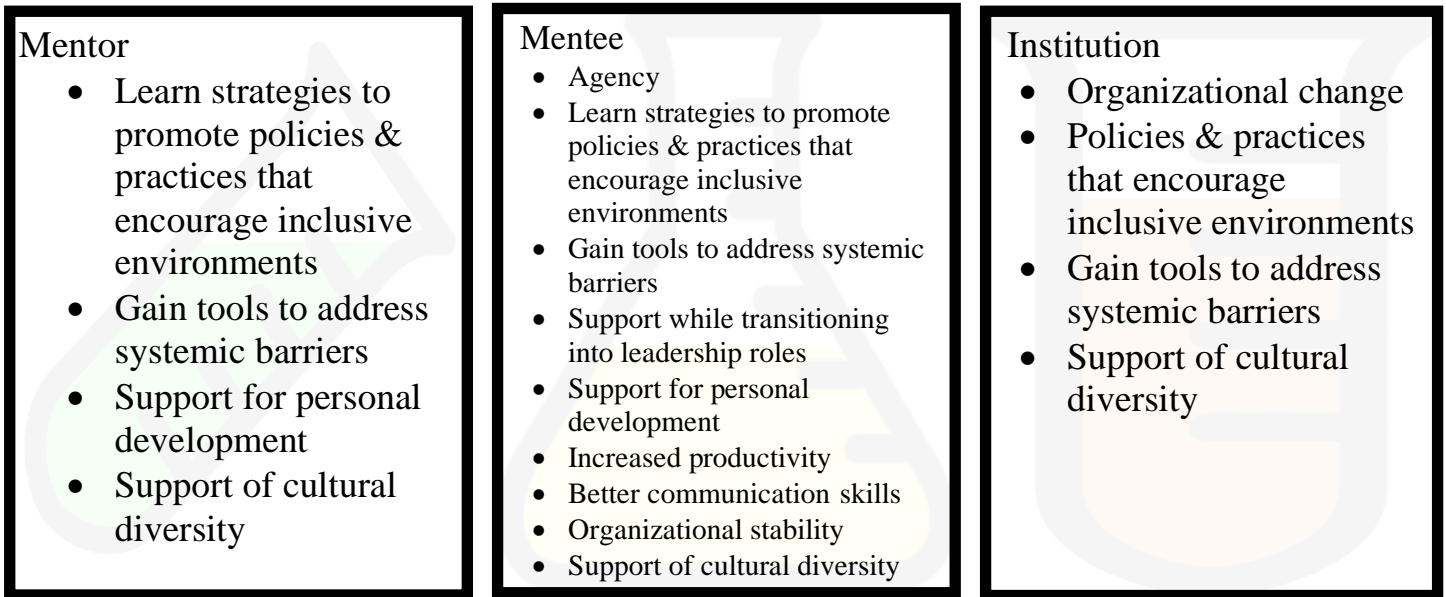
Women's underrepresentation in STEM likely results from structural conditions within universities, like "chilly" climates that marginalize women (Hirshfield, 2010; Riffle et al., 2013; Smith-Doerr et al., 2016), masculine work cultures (Richman et al., 2011; Gupta, 2007; Uriarte et al., 2007; Burger, 2009; Smith-Doerr et al., 2016), and negative stereotypes about women and STEM (Cheryan et al., 2013; Cheryan et al., 2017; Kmec, 2013). Women are more likely to perceive a more negative workplace climate in academia than men (Riffle et al. 2013). Identity threat, or the concern that one's shortcomings are attributed not only themselves, but also their social group (e.g., racial/ethnic group, gender, sexual orientation, etc.), contributes to this view, as women are hyper-visible in male dominated STEM fields (Hirshfield, 2010). In short, women in these spaces may worry that any mistakes they make are attributed to themselves as women and women as a group. Identity threat has real consequences for women in STEM fields, especially in terms of their perceptions of their performance. Despite evidence that women's performance in math and science is equal to or better than men's (Riegle-Crumb et al., 2012; Else-Quest et al., 2010; Stoet & Geary, 2018), women have lower confidence in math and science (Ganley & Lubienski, 2016; Ellis et al., 2016), lower self-perceptions towards STEM subjects, sense of belonging, or professional role confidence in STEM (Hazari et al., 2013;

Cech et al., 2011; Ong, 2005). These disparities may be attributed to the ‘confidence gap’ that disproportionately affects women in STEM (Ben- Shachar, 2014).

Masculine work cultures emphasize traits (e.g., individualism, competition, socially-disconnected science) that disadvantage and discourage women (Gupta, 2007; Uriarte et al., 2007; Burger, 2009; Schiebinger & Schraudner, 2011; Smith-Doerr et al., 2016). Women tend to view competitive and individualistic work environments more negatively than men, often finding it challenging to thrive there (Uriarte et al., 2007; Smith-Doerr et al., 2016; Burger, 2009; Gupta, 2007). Meanwhile, men benefit from this type of work culture as they have a greater sense of belonging than women, likely leading to a greater sense of competence (Cheryan et al., 2017). Similarly, an emphasis on socially disconnected science, or a removal of scientific research from societal issues, in STEM also disadvantages women, as women frequently express an interest in producing research that makes an impact in society outside of academia (Uriarte et al., 2007; Smith-Doerr et al., 2016; Kongar et al., 2008; Espinosa, 2011). Women in STEM often gravitate towards interdisciplinary research addressing societal issues (Rhoten & Pfirman, 2007) and value collaborative team environments while doing so (Kongar et al., 2008; Fox, 2000; Rhoten & Pfirman, 2007; Smith-Doerr, 2005). This potential misalignment of emphasis in STEM disciplines and women goals may result in decisions to leave their respective fields (Espinosa, 2011).

Mentoring is particularly advantageous to women in STEM because mentoring can help women mitigate the structural conditions (e.g., the emphasis on masculine values) that directly affects their participation in STEM. Mentorship enhances their interest in STEM research as well as teaching (Heilbronner, 2012), and fosters caring communities (Chesler & Chesler, 2002), promoting a sense of collegiality (Gorman et al., 2010) and feminist views of organizational structures/ dynamics (Morimoto & Zajicek, 2012). These mentoring outcomes contribute to women's ability to overcome the 'confidence gap' (Ben- Shachar, 2014). Women in mentoring relationships report feeling more confident than women not engaged in mentoring relationships. Despite the known benefits of mentoring, our understanding of what specific actions qualify a mentor as a ‘good mentor’ is still emerging (Eller, Lev, & Feurer, 2014). Mentoring literature instead utilizes mentoring functions to explain mentoring behaviors.

Figure 2. Benefits of Mentoring



Mentoring Functions

Mentor functions consists of goals and measurable behaviors pertaining to the goals (Kraiger, Finkelstein, & Waltz, 2014). For instance, the goal may be to protect the mentee, but the specific behaviors might include discouraging the mentee from accepting additional responsibilities that would take up their time. Mentors may understand the goal of protecting their mentee but may not know what specific actions they need to take to achieve that goal. Generally, mentoring functions fall into one of two categories: career-related functions and psychosocial-related functions. As the names suggest, career-related functions work towards meeting the mentee’s career goals while psychosocial-related functions address the mentee’s personal development goals and work-life balance (Kraiger, Finkelstein, & Waltz, 2014).

Successful Mentoring Relationships

Successful mentoring relationships are characterized by active engagement from both mentors and mentee, communication, and similar interests (Barrett, Mazerolle, & Nottingham, 2017). The mentor and mentee should have common tasks they can work on together (Allen & Poteet, 1999).

Active Engagement

To actively engage in the mentoring relationship, both the mentor and mentee need to establish an open communication system that allows for reciprocal feedback (Allen & Poteet, 1999; Eller, Lev, & Feurer, 2014). Reciprocal feedback requires that both parties actively listen, be open and comfortable, care for, and trust one another (Allen & Poteet, 1999; Philips-Jones, 2003). Together, the mentor and mentee should set up the structure for working together (Allen & Poteet 1999; Kraiger, Finkelstein, & Waltz, 2014) and develop

goals, informed by the current reality of the mentee's position (Haggard, 2012; Philips-Jones, 2003; Sosik & Godshalk, 2004; Straus & Sackett, 2012). Ideally, these discussions occur at the first meeting (Straus & Sackett, 2012) where the mentor and mentee also discuss and schedule regular meetings (Bailey et al., 2016; Haggard, 2012).

In their meetings, the mentor and mentee should create and maintain a list of action items for both parties (Bailey et al., 2016). Throughout the relationship, the pair should regularly revisit their discussion of the goals and expectations of the mentorship to assess their progress (Kraiger, Finkelstein, & Waltz, 2014; Straus & Sackett, 2012).

Mentors and mentees should be flexible, allow for some missteps, be willing to learn and encourage one another (Allen & Poteet, 1999; Philips-Jones, 2003). Each person should recognize the investment in the relationship and provide sincere, positive feedback when appropriate (Philips-Jones, 2003).



Summary

Successful mentoring relationships have:

- common interests
- reciprocal, open, and honest lines of communication
- active engagement

Expectations of the Mentor

Ideal mentors help mentees with both career-related and psychosocial-related functions throughout their mentoring relationship. As career-related functions are typically the primary goal of mentoring, we discuss these functions first.

Career-related functions

Overall, career-related functions emphasize the advancement of the mentee's career and professional development. Successful mentors are competent, available to their mentees, socialize their mentee to their profession's norms and expectations, and challenge their mentees to grow (Yob & Crawford, 2012).

Competence

Effective mentors are typically more advanced than their mentee (Bailey et al., 2016). Mentors should be well-established and successful in their field (Bailey et al., 2016; Johnson, Smith, & Haythornthwaite, 2020) with specialized knowledge about their industry or organization that their mentee needs to know to meet their goals (Allen & Poteet, 1999; Bailey et al., 2016; Hamlin & Sage, 2011; Gusic et al., 2010; Johnson, Smith, & Haythornthwaite, 2020; Kraiger,

Finkelstein, & Waltz, 2014). Similarly, successful mentors often have a specific skillset or resources that makes them an ideal fit for their mentee (Gusic et al., 2010). In network mentoring and mutual mentoring models, this may mean that one mentor serves as the mentor in a specialized area (e.g., research methods, content area, work-life balance, etc.) (Rockquemore, 2013; Yun et al., 2016). More importantly, the mentor should be able to effectively teach their mentee and have a history of successful mentoring (Allen & Poteet, 1999; Bailey et al., 2016; Gusic et al., 2010). Mentors should have leadership qualities, including being organized, flexible, self-confident, goal-oriented, creative, and passionate about their work (Allen & Poteet, 1999; Bailey et al., 2016; Gusic et al., 2010).

Availability

To be successful, the mentor needs to be available to their mentee (Gusic et al., 2010; Yob & Crawford, 2012). Good mentors invest in their mentoring relationships by being available to discuss problems and concerns, celebrate victories, and support the mentee as they advance in their career (Gusic et al., 2010; Straus & Sackett, 2012). Mentors should be genuinely interested mentoring and willing to share their expertise with their mentee (Allen & Poteet, 1999; Gusic et al., 2010).

Professional Socialization

Part of a good mentor's job is to socialize their mentee to their profession's norms and expectations, or "induct" them to their profession or rank (Yob & Crawford, 2012). Mentors provide their mentee with guidance on professional and career development (Bailey et al., 2016). For instance, mentees reported that their best mentor asked them how they were spending their time and helped them see what percentage of their time was spent working on their high priority tasks (Kraiger, Finkelstein, & Waltz, 2014). Additionally, mentors teach their mentee about their organizations (e.g., values, culture, politics, etc.) and career expectations and milestones (Philips-Jones, 2003; Sanfey, Hollands, & Gantt, 2013).

Mentors also engage in intentional role-modeling (Johnson, Smith, & Haythornthwaite, 2020). They may invite their mentee to observe or shadow them on assignments, tasks, and teaching to allow mentees to learn not only how to do the task, but also the explanations behind the different strategies employed (Kraiger, Finkelstein, & Waltz, 2014; Straus & Sackett, 2012). In doing so, mentors provide their mentee with necessary procedural knowledge to expand their professional skillset (Kraiger, Finkelstein, & Waltz, 2014).

In addition to role-modeling, mentors advocate on the behalf of their mentee (Johnson, Smith, & Haythornthwaite, 2020). They leverage their social and professional networks to support mentees (Hamlin & Sage, 2011; Johnson, Smith, & Haythornthwaite, 2020). Additionally, mentors should nominate (or advocate for the nomination of) their mentees for awards, fellowships, and promotion or tenure (Kraiger, Finkelstein, & Waltz, 2014; Straus & Sackett, 2012). Successful mentors also connect mentees with people in their own networks to provide their mentee with needed resources (Kraiger, Finkelstein, & Waltz, 2014; Straus & Sackett,

2012). For example, when the mentor lacks the skillset or knowledge the mentee needs, the mentor connect the mentee with a more knowledgeable mentor (Strauss & Sackett, 2012).

Challenging

Mentors challenge their mentee to help them grow without overwhelming the mentee (Johnson, Smith, & Haythornthwaite, 2020; Yob & Crawford, 2012). Challenging mentees includes providing feedback, perspective, opportunities to safely learn, and instructions that allow mentees to develop new skills (Allen & Poteet, 1999; Bailey et al., 2016; Gusic et al., 2010; Kraiger, Finkelstein, & Waltz, 2014; Philips-Jones, 2003).

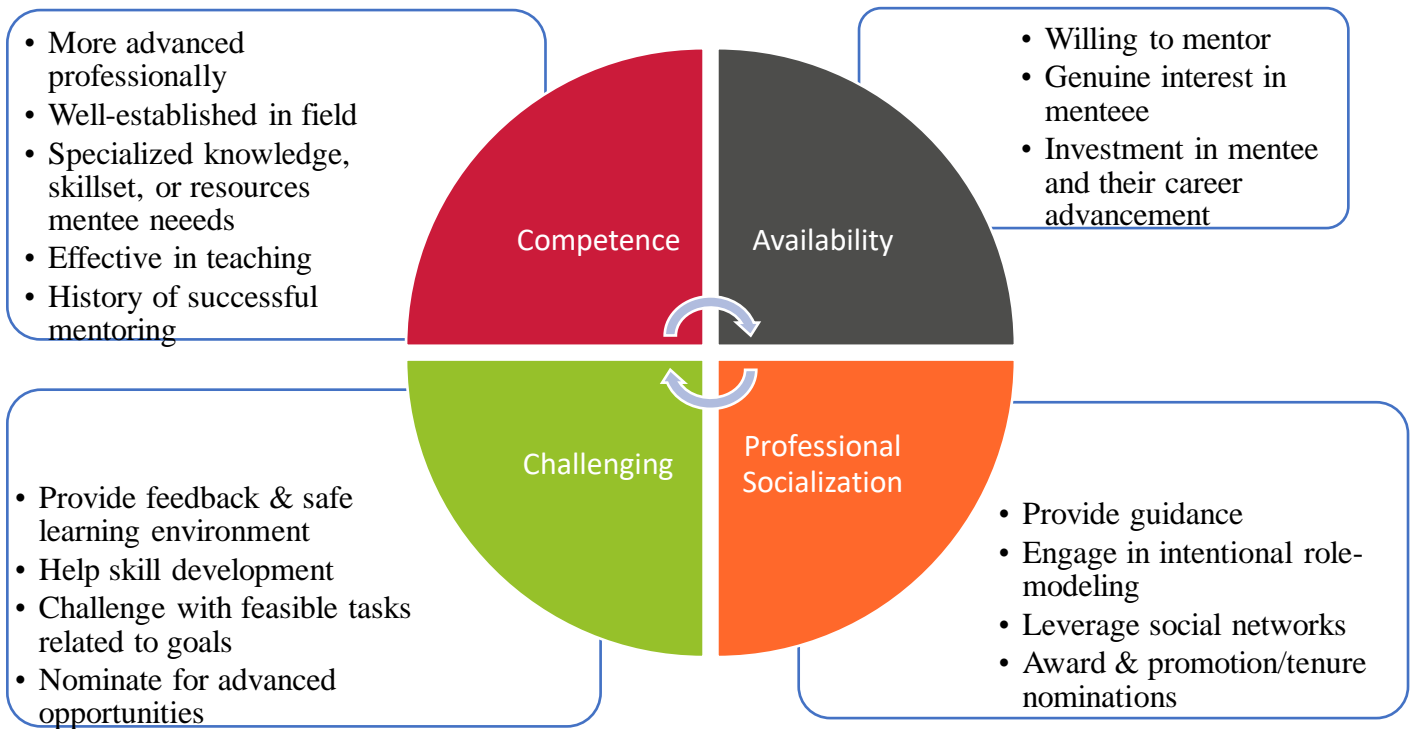
Mentees reported that their best mentors regularly provided them with feedback (Bailey et al., 2016; Gusic et al., 2010; Kraiger, Finkelstein, & Waltz, 1999; Philips-Jones, 2003). They also reported receiving both critical feedback and encouragement (Bailey et al., 2016; Gusic et al., 2010; Hamlin & Sage, 2011; Sanfey, Hollands, & Gantt, 2013). Effective mentors used a ‘reiterate and review’ feedback process in which the mentor summarized and clarified what was discussed to ensure both the mentor and mentee understand the issues and actions necessary to resolve them (Straus & Sackett, 2012). Mentors should utilize the ‘reiterate and review’ process to provide their mentee multiple and differing prospective on problems the mentee encounters. In doing so, mentors ensure their mentee knows that their mentor is listening and fully understands the problem prior to finding solutions to the issue. This allows the mentee to consider alternative solutions and interpretations to resolve the issue (Kraiger, Finkelstein, & Waltz, 2014).

Mentors should allow mentees to learn on their own in a non-judgmental environment (Allen & Poteet, 1999; Gusic et al., 2010; Hamlin & Sage, 2011). In this environment, successful mentors provide their mentees with feasible goals, challenge their mentee to think through problems that arise on their own, and allow the mentee to take risks without directing the mentee with the specific steps (Allen & Poteet, 1999; Kraiger, Finkelstein, & Waltz, 2014). Mentees may struggle throughout the learning process, and ideally the mentor will manage risks such that any missteps will not be detrimental to the mentee’s career advancement (Gusic et al., 2010; Kraiger, Finkelstein, & Waltz, 2014; Philips-Jones, 2003).

Effective mentors instruct their mentee, helping them further develop skills and build capacity (Philips-Jones, 2003). The types of skills vary depending on the goals of the mentee and the mentoring relationships, and could include identifying resources (e.g., collaborators, data, software, funding), for example with mentors modeling how they complete these tasks (Philips-Jones, 2003). In fact, mentors frequently use intentional role-modeling to first convey new knowledge and skills to mentees (Philips-Jones, 2003). After monitoring the mentee’s performance and redirecting the mentee’s actions as needed, the mentor should provide the mentee with purposefully challenging, though not impossible, tasks (relevant to their goals) while encouraging the mentee (Kraiger, Finkelstein, & Waltz, 2014; Philips-Jones, 2003). When deemed ready, mentors should start nominating their mentee for more advanced tasks and opportunities (e.g., grant review committees, task forces, and symposia)

in order to build their mentee’s experience and grow their networks and reputation (Straus & Sackett, 2012).

Figure 3. Effective Career-related Mentoring Functions



Psychosocial-related functions

While mentors frequently focus on career-related guidance, effective mentors inevitably provide psychosocial-related mentoring (Kraiger, Finkelstein, & Waltz, 2014). Mentees emphasized three themes that are important to being a good mentor: personal qualities, communication, and emotional support (Yob & Crawford, 2012).

Personal Qualities

Mentees particularly value mentors who are emotionally intelligent (Johnson, Smith, & Haythornthwaite, 2020) and altruistic (Straus & Sackett, 2012). Mentors should be honest, trustworthy, patient, respectful, fair, objective, open to suggestions, and care about their mentee outside of their productivity (Allen & Poteet, 1999; Bailey et al., 2016; Hamlin & Sage, 2011). Mentees frequently discussed that it was important for their mentors to be ‘like them’ demographically to provide guidance on similar experiences at work (Bailey et al., 2016). In other words, shared identities were important to their mentoring relationship in order for both parties to understand the implicit and explicit demands each other face at work. For instance, service expectations for a white man may vary greatly from those of a black woman. Without explicitly saying so, mentees identified that mentors should recognize their identities, their mentee’s identities, and how these identities shape their experiences in academia. This awareness, or intersectional lens, allows the mentor to better assist the mentee with their

various demands at work. We will discuss an intersectional mentoring approach in the identity-conscious mentoring section.

Communication

Mentees report better outcomes with mentors that they perceive as competent in their communication (Yob & Crawford, 2012). In addition to making time to regularly meet and honoring these times, mentors must demonstrate their communication skills by actively listening to their mentees during their meetings asking questions that prompt the mentee to reconceptualize or reframe their ideas, considering different angles (Allen & Poteet, 1999; Hamlin & Sage, 2011; Johnson, Smith, & Haythornthwaite, 2020; Kraiger, Finkelstein, & Waltz, 2014). Mentees emphasized the importance of the mentor's ability to 'read' others, or in other words, demonstrate their emotional intelligence through both verbal and non-verbal communication skills (Allen & Poteet, 1999; Johnson, Smith, & Haythornthwaite, 2020).

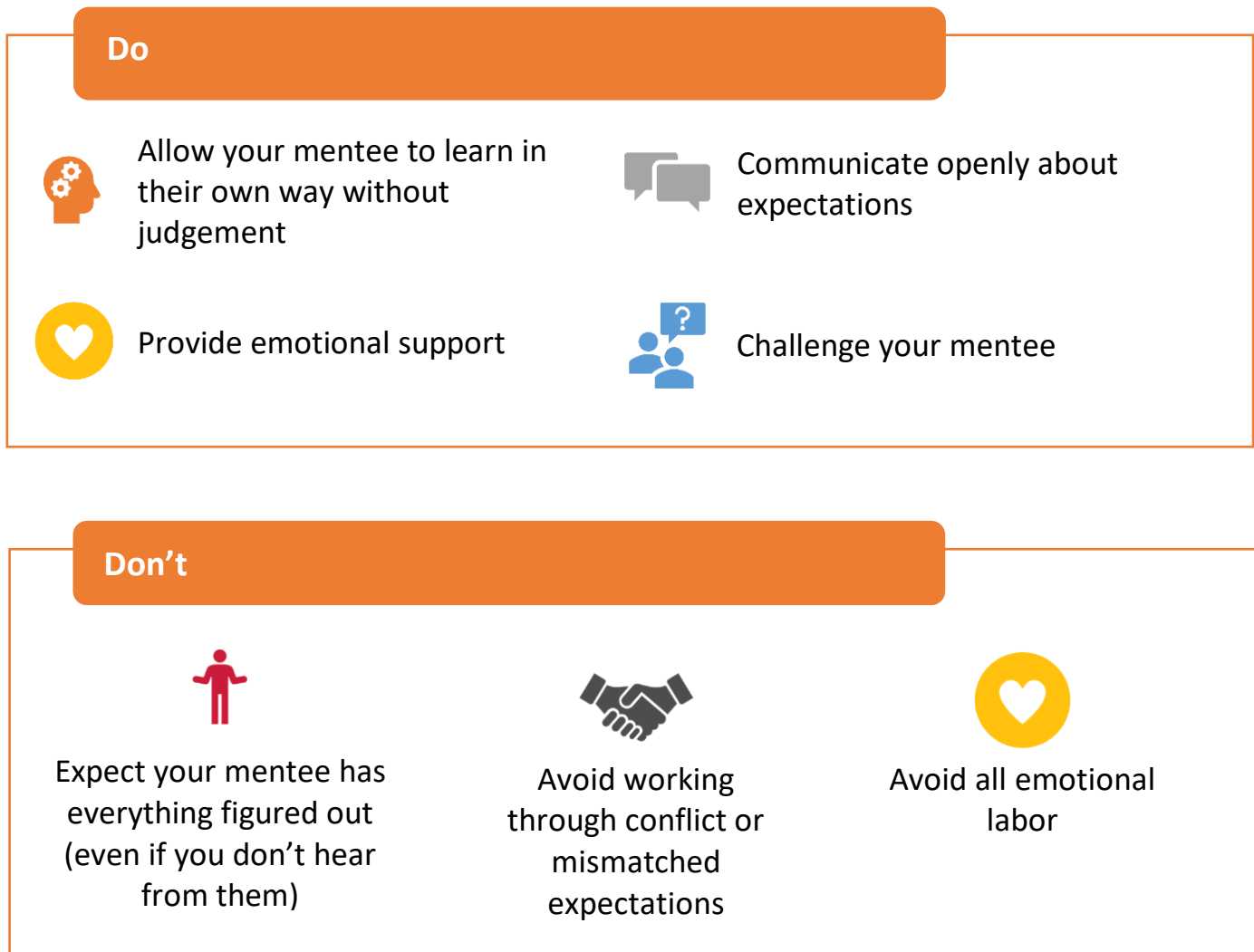
Emotional Support

Effective mentors provide their mentees with emotional support (Yob & Crawford, 2012). Mentors act as a 'sounding board' to mentees by listening openly, empathetically, and without judgement (Kraiger, Finkelstein, & Waltz, 2014; Straus & Sackett, 2012). They encourage the mentee by affirming their experiences and giving them flexibility to make mistakes in order to learn (Bailey et al., 2016; Johnson, Smith, & Haythornthwaite, 2020; Kraiger, Finkelstein, & Waltz, 2014). Mentors also support their mentee's vision by allowing them to verbalize their issues, goals, and needs, and then providing the mentee with perspective to clarify what the mentee needs to be successful (Hamlin & Sage, 2011; Kraiger, Finkelstein, & Waltz, 2014).

In addition to acting as a 'sounding board,' mentors also help mentees work towards appropriate work-life balance (Straus et al., 2013). As mentors should ideally help mentees decide and uphold their priorities (Kraiger, Finkelstein, & Waltz, 2014), mentors should have discussions with their mentees about targeting opportunities that best help the mentee accomplish their goals, rather than accepting all opportunities (Straus et al., 2013).

Finally, mentors and mentee should develop and share a personal relationship (Bailey et al., 2016). In this mutual relationship, the mentors should disclose personal stories that highlight commonalities between the mentor and mentee to help them connect (Kraiger, Finkelstein, & Waltz, 2014). Of course, these disclosures should be designed to help the mentee with whatever issue they may be working through and/or goals they would like to accomplish (Kraiger, Finkelstein, & Waltz, 2014). To keep this professional and personal relationship functioning appropriately, both parties should use basic maintenance behaviors (e.g., monitoring for issues, appropriate self-disclosure, being positive). This is especially important for the mentor as they are modeling appropriate professional behaviors (Johnson, Smith, & Haythornthwaite, 2020; Kraiger, Finkelstein, & Waltz, 2014).

Figure 4. Mentors Do's and Don'ts



Expectations of the Mentee

Starting a mentoring relationship

Although the scope of many mentor-mentee relationships remain loosely-defined, the mentee's expectations for the relationship are a powerful driver of its success (Allen et al., 2006; Finkelstein & Poteet, 2007). When seeking a mentor, it is important that a mentee has clear goals (Sanfey et al., 2013) and selects a mentor based on characteristics that they believe will suit their [the mentee's] needs (Lee et al., 2006). With this in mind, it may be helpful for the mentee to write a "job description" of their ideal mentor, such that they are able to recognize characteristics in individuals within their professional networks (Horoszowski, 2020). When approaching a prospective mentor, the mentee should have a clear ask of the mentor and start simply by proposing a first meeting to discuss the potential of a mentorship agreement (Horoszowski, 2020).

Behaviors of a successful mentee

While the benefits of mentorship to the mentee are apparent, [i.e., successful mentees often report higher compensation, career advancement, and career satisfaction (Allen & Poteet, 1999)] this partnership can and should be constructed with a vision that is mutually beneficial (Lee et al., 2006). In order to uphold their end of the mentorship agreement, the mentee should be tracking their progress towards their goals, as well as considering whether to refine these goals and means of achieving them based on challenges or successes they [the mentee] has along the way (Lee et al., 2006). To facilitate the goal-making process, the mentee should have concrete goals that more or less align with SMART principles (i.e., goals should be Specific, Measurable, Attainable, Realistic, and Time-bound) (Horoszowski, 2020) or SMARTIE goals (Specific, Measurable, Attainable, Realistic, Time-bound, Inclusive, and Equitable) (The Management Center, 2021). Successful mentees will be available to their mentor (to the extent that both feel necessary), honest and accountable, respectful, open to feedback, and will demonstrate a positive approach to mistakes or failure (Gusic et al., 2010). Nonetheless, while listening to a mentor's feedback is important, the mentee should feel comfortable speaking their mind and be prepared to resolve conflicts that may arise if perspectives differ, as both mentor and mentee ought to benefit from asking questions and working together (Lee et al., 2006).

As the relationship progresses, the mentee should continue to hold themselves accountable, while following-up with their mentor (Horoszowski, 2020). Mentees should be timely to meetings and prepared to discuss the meeting topic (Straus et al., 2013), and should communicate to the mentor when extenuating circumstances arise (Gusic et al., 2010).

Growing as a mentee and a professional

Assuming that the mentee is enthusiastic about their career and area of interest, they should be prepared to go beyond the mentor's suggestions, demonstrating their creativity and ambition when it is appropriate (Philips-Jones, 2003). Although there may be situations in which showing extra initiative may not be appropriate or beneficial (Philips-Jones, 2003), the mentee should largely be responsible for taking ownership of the work that they wish to pursue and how that can be achieved with the help of the mentor (Hamlin & Sage, 2011; Philips-Jones, 2003).

Throughout the project(s) or relationship, the mentee should follow through with that which they set out to complete (Hamlin & Sage, 2011; Philips-Jones, 2003), asking questions of the mentor along the way when necessary (Lee et al., 2006). Ideally, this dynamic is mutually beneficial, enjoyable, and challenging for the mentor and mentee (Hamlin & Sage, 2011; Philips-Jones, 2003).

Figure 5. Mentee Expectation Summary

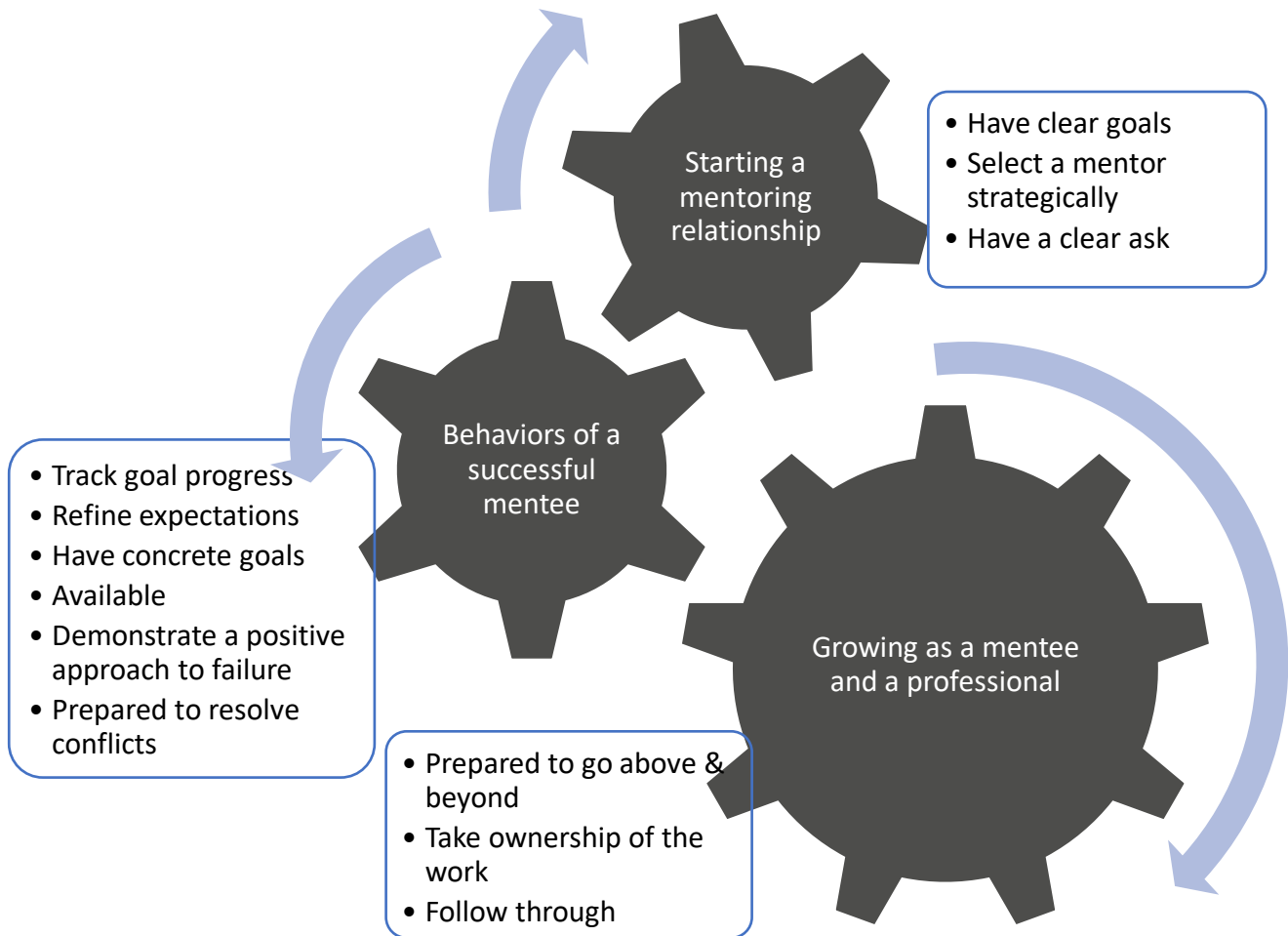
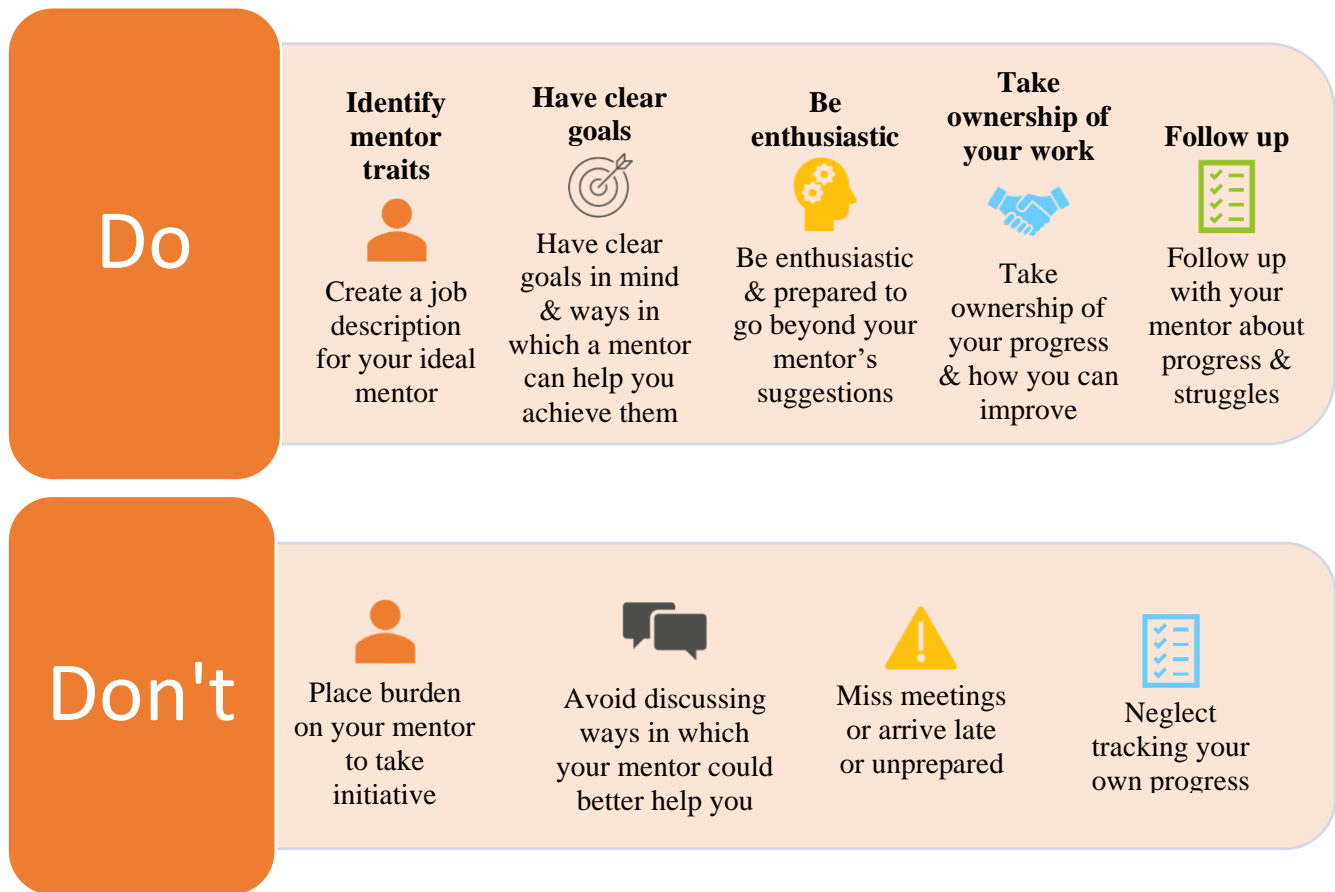


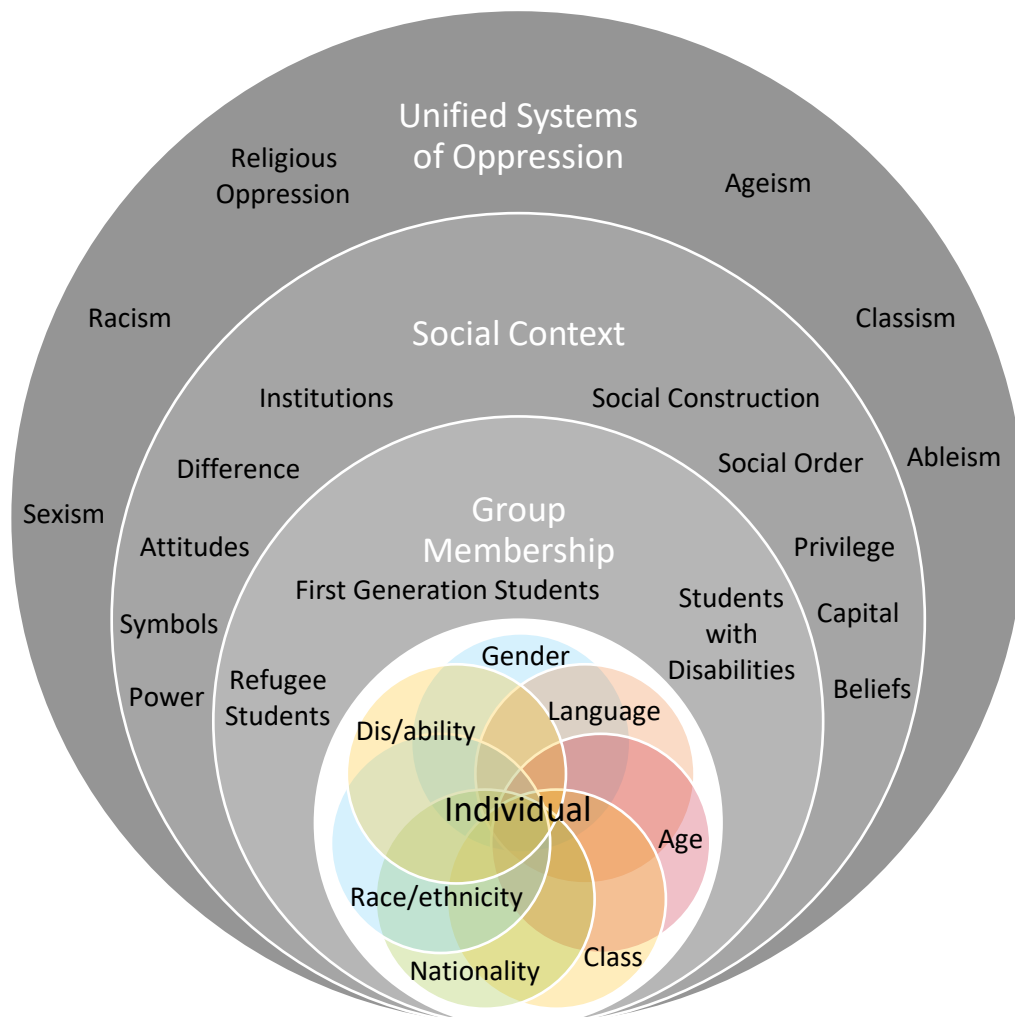
Figure 6. Mentee Do's and Don'ts



Identity-Conscious Mentoring

Successful mentors approach their mentoring relationship with an intersectional lens that recognizes the ways in which oppression (based on race, class, gender, sexual orientation, etc.) is maintained by social systems of power, and that privilege favors some—and marginalizes other—identities. The identity-conscious and intersectional-focused mentor experiences personal and professional growth through mutual exchange with their mentee(s) and expansion in understanding of diverse identities (Nyanjom 2020). Furthermore, mentors who use an intersectional lens are generally perceived as more competent in their mentorship role (Nyanjom 2020). Under the intersectional approach, one acknowledges the ways in which multiple forms of oppression operate both simultaneously and jointly to create unique circumstances and experiences for their mentee (Crenshaw 1991; Collins 1990). In other words, individuals in a mentoring relationship ought to take stock of the ways in which their identities are situated within both personal and cultural contexts (including “institutional, disciplinary, and external community culture and values”) (Palmer et al. 2015:411). For instance, women of color in STEM fields are frequently unrecognized in their field, as they are not considered the prototypical scientist; however, not matching the prototypical idea of the scientist also makes them hyper-visible in their field, and they may receive more service requests than their white male counterparts (Wilkins-Yel et al. 2019).

Figure 7. Intersectionality Examples (Brinkman, 2021)



This model of intersectionality demonstrates that an individual’s identities operate jointly and influences the way the individual experiences their group memberships, how those memberships influence their social context, and how that social context influences the individual’s interactions within different systems of oppression.

Mentoring in oppressive institutions

With much of academia being white, many scholars of color find themselves in predominantly white institutions (PWIs), making identity-conscious mentoring (and co-working) essential for one’s professional success and comfort in institutions that were designed to be exclusive rather than inclusive (Reddick & Young 2012). In this setting, white faculty must be aware of and proactive in supporting mentees of color and from underrepresented groups by committing to not just race-conscious, but an anti-racist worldview (Brown et al. 1999; Scheurich & Laible 1995; Young & Brooks 2008). In PWIs, it is especially important that individuals from underrepresented groups do not bear the burden of “educating” colleagues on issues surrounding oppression. In other words, mentors ought to be aware that faculty and students from underrepresented groups are frequently tokenized and burdened with explaining their

experiences of oppression by, for example, being asked to serve on diversity, equity, and inclusion (DEI) committees or having to justify their expertise in their own field (Brayboy 2003; Padilla 1994; Reddick 2006; Banks 1984). Mentees are likely to share lived experience that shaped their intersections with the mentor, and mentors are responsible for their own learning and growth which will enable them to appreciate their mentees' journey more fully.

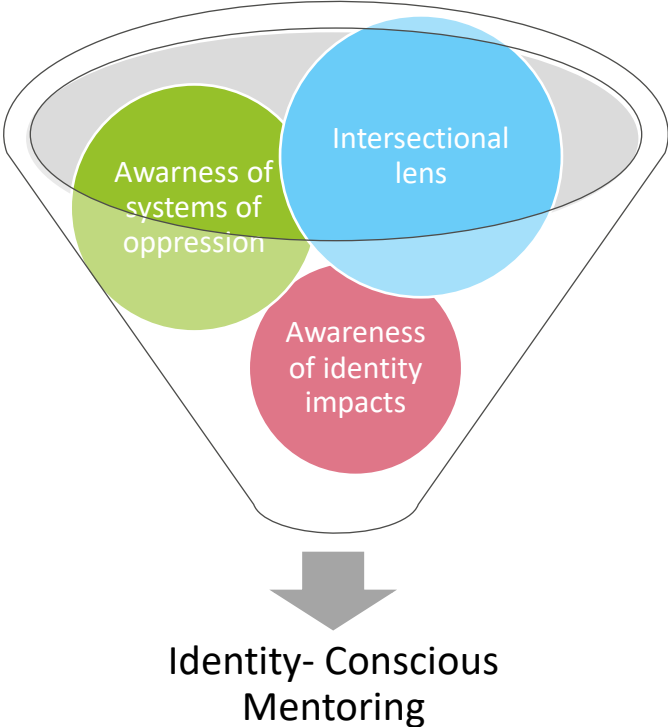
Reddick and Young (2012) point out that mentees with underrepresented identities need not [necessarily] be mentored by someone with a similar identity, especially given the preexisting lack of representation in academic institutions. Though important for all races, white mentors must take initiative to educate themselves on the aforementioned structural constraints mentees from underrepresented groups face, both within their academic institution and the broader social structures. They must then make it known to mentees that they are gaining understanding in these topics and are able to serve as trusted and worthwhile allies (Reddick & Young, 2012). Positive mentor-mentee relationships form when both give explicit attention to institutional stigma and discrimination around other critical aspects of one's identity, including gender identity and sexual orientation (Russell & Horne, 2009). Mentors need to be mindful of intersections related to gender identity and sexual orientation with race/ethnicity, as well as disability (visible and invisible), immigration history/culture of origin/preferred language, and socio-economic factors (e.g., first generation college student).

Benefits of identity-conscious mentoring

The benefits of identity-conscious mentoring to mentees and their institutions are numerous. For example, mentors with some understanding of barriers faced by those who identify with underrepresented groups at PWIs can assist with retention and support success of their mentees and colleagues (Zambrana et al., 2015). An additional gendered dynamic could be taken into account, as more 'masculine' mentees (i.e., those for whom career is a strong part of their identity) may look for a mentor to provide career development support exclusively, whereas more 'feminine' mentees (i.e., those who gauge career success on socio-emotional criteria) may look to a mentor for psychosocial support as well (Ortiz-Walters et al., 2010). Of course, matching mentors to mentees by even more specific goals (e.g., looking for guidance regarding navigating administrative duties in a community college setting) could be particularly beneficial.

In addition to more positive outcomes for mentors and mentees alike, identity-conscious and intersectional mentoring can help contribute to a broader goal of achieving a more inclusive institutional climate, social justice and more equitable outcomes among historically marginalized groups (Albright et al., 2017; Hall & Burns, 2009).

Figure 8. Identity Conscious Mentoring



Possible Topics of Discussion and Questions

Mentors have agreed to support you, so don't feel guilty about asking to meet with them. Creating and sharing a list of topics to discuss ahead of a call with your mentor gives your mentor a sense of what they might share with you. Once you know them a little better, you might also consider if there are colleagues of what your mentor(s) you would like to learn more about or connect with. Below are some topics and questions you may find helpful to discuss with your mentor.

1. Leadership roles in higher education – why do it? Pros, cons
2. Being a woman amongst men in leadership roles – what challenges and conversely, what opportunities?
3. Navigating relationships to get things done (implicit norms and the politics of higher ed). Some are naturally good at this and for others it takes work. What is the value of this work?
4. Leadership at different levels (state assoc, national assoc) vs. within the institution. Have you done it? Why or why not?
5. Has the mentor experienced sexism, racism, ageism, or other discriminatory practices (microaggressions?) in the work place? How have they handled these situations? Where did they go for help? If they did not, do they recommend any particular office or agency where their mentee should seek help?
6. Has the mentor observed sexism, racism, ageism, or other discriminatory practices in their workplace even if they were not the target? Have they responded or otherwise used a bystander intervention approach? Why or why not?
7. Their experiences as a scholar and teacher that have contributed to their successes and any particular experience that helped shape them as a leader or a successful professor.
8. Work-life balance and how they make decisions around this very important topic.
9. Were there things that they wished they had known before taking certain steps (moving to full professor, becoming a program officer, becoming an administrator)
10. Any advice on possible next steps such as getting additional degrees?
11. What do career pathways look like? Explore what alternate careers might look like.
12. Share about your institutional context and learn about your mentor's to understand what is different. For example, what would it take to get tenure/and or promotion at your mentor's institution?
13. What are the mentor's suggestions on how to identify external evaluators and potential relationships with potential outside evaluators for tenure and/or promotion? What are best practices for putting together a list of external evaluators? How does one approach a potential external evaluator and request their feedback? Does the mentor have any advice or experience with this?
14. How to become more efficient in teaching multiple courses without sacrificing student success?
15. Any tricks for making complex STEM material more accessible to students?

16. How does the mentor bring STEM research into the classroom in a way that resonates with students, feels applicable to real life situations?
17. Are there evaluation approaches the mentor used other than tests that provide accurate markers of student learning?
18. Have the mentor ever asked for a raise? Do they have any recommendations for approaching this conversation?
19. Who was the most important mentor in their career development and why? What were most critical elements of this mentorship experience and what were the most helpful things they learned from him/her?

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