

# Mentorship: A Scientific Perspective #3 Mentorship Structures

## Formal vs Informal

It is worth noting that both formal and informal mentorship structures exist, and both have their place in career development. We will, however, be focusing on formal structures, as that is what can be planned for as well as tracked and measured over time. That said, informal mentoring should always be encouraged as an organic way of developing mutually beneficial mentoring relationships.



## The Dyadic Model

The dyadic model is often considered the "traditional" style of mentoring, where a mentee is paired with a more senior person who offers both professional and (at least ideally) psychosocial support. This model is limited in that much rides on a good pairing of mentor with mentee. If the match is not great, or if the mentor is better at either the professional or the psychosocial aspect, then the mentee is not receiving a full mentoring experience.

## Non-Dyadic Model Types

A non-dyadic model of mentorship is any model that diverges from the "traditional" dyadic model, and there are several models that do so. Here we will explore the following non-dyadic model types:

- Triadic models
- Group or collaborative models
- Network models

Each of these types have multiple ways of implementing the model in terms of both structure and practice.

## Triadic Models



Triadic models are groups of three in a mentorship arrangement. This arrangement can work in different ways. That is, it can be one senior person mentoring two junior people; a group of scaffolded mentors -- a senior mentor, a junior mentor, and a mentee; three peer mentors who have an equalized group and distribute the mentorship throughout (more on that later), among other possibilities. Simply adding one other person to the dyad creates a more vibrant dynamic, allowing for a multi-directional flow of information, support, and relationship-building.



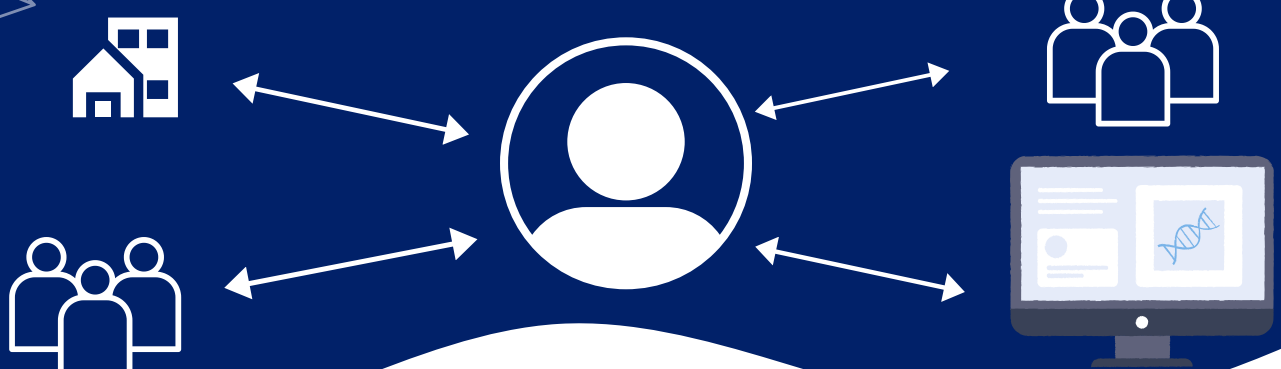
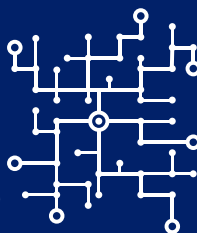
## Group or Collaborative Models



Group or collaborative models are similar to triads, only with more people. Similar to the triadic model, then, there are many ways to arrange these sorts of mentorship groups. Groups can be led by a primary senior mentor and include only mentees underneath, or they may include a mix of several levels of experience. They may include mentors for specific aspects for the group. So, for example, a mentorship group could include a senior mentor who takes point on the scientific aspects, one who specializes in professional development and career planning, and another who is there to provide psychosocial support. Usually, these categories are not so rigidly defined, though, and group models often are quite fluid in structure and practice.

## Network Models

Network models are similar to group models, but they include non-human resources and emphasize the importance of mentees having the opportunity to be plugged into the resources available at an institution or multiple institutions. Studies show that, for historically underrepresented faculty in particular, a mentorship network can mitigate problems related to hierarchy and eliminate at least some relational obstacles, resulting in more reciprocal mentoring.

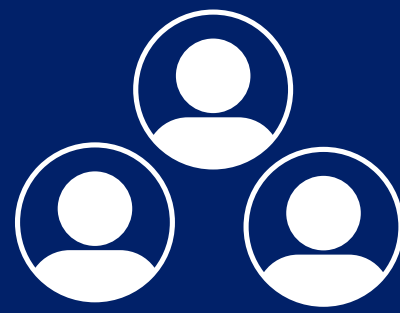


This information is adapted from chapter 4 of the following text:

Consensus Study Report [The Science of Effective Mentoring in STEMM](#) (2019). The study was sponsored by the Howard Hughes Medical Institute, Alfred P. Sloan Foundation, Burroughs Wellcome Fund, and by a grant from the Gulf Research Program. Copies of the Consensus Study Report are available from the National Academies Press, (800) 624-6242; <http://www.nap.edu>. For the study's accompanying online guide see: [www.nationalacademies.org/MentorshipinSTEMM](http://www.nationalacademies.org/MentorshipinSTEMM).

Infographic created by Julie Hawk, PhD

# Mentorship Structures



## Affinity Groups

Affinity groups are collaborative mentorship groups that form, either formally or informally, around a particular shared identity category or pursuit. Groups formed around a commonality like this have the potential to create a space for individuals to feel psychological safety while developing professionally, particularly if participants were, in prior mentoring models, feeling isolated or invisible due to their identities. Often these groups encompass far more than one institution, though they certainly may exist within an institution. They fit well with online mentorship.



## Peer and Near-Peer Mentoring

Peer and/or near-peer mentoring is when peers or those only a bit further along than a cohort of mentees provide mentoring for each other. Such programs can be scaffolded such that mentees have a junior mentor who is a near peer and a senior mentor who is more experienced. Peer mentoring does not usually replace more traditional mentoring, but rather augments it. Studies remain few on this model, but early results suggest that peer and near-peer mentoring can reduce feelings of isolation and enhance self-efficacy.

## Online or E-Mentorship



Online mentorship programs have grown over the last two decades with the rise of social media and online communication in general. They have grown still more over the last three years due to the COVID pandemic. Online mentoring provides an excellent replacement for face to face programs when participants are at an institution with a scarcity of resources and possible mentors in the discipline, for example. Online mentorship also enables affinity groups to thrive in spaces much larger than one institution.

## "Holding Environments"

The concept of the holding environment is one example of how institutions can encourage a safe place for mentees to face difficult challenges. Audrey Murrell defines a holding environment as a "reliable environment where individuals feel safe to examine and interact with what their world can and should present, even when they are anxious, inexperienced, challenged, unmotivated or misdirected." Further, Murrell explains, holding environments "influence everyone in that environment, not just the mentee, and they provide support in the face of developmental challenges that may necessitate resilience, determination, and persistence to resolve" (qtd. in **The Science of Effective Mentoring in STEMM** 99). While holding environments must be institutionally created, and therefore are not within the power of any individual mentor to enact fully, thinking about mentorship in this way allows for exploring challenges with mentees in ways that ensure psychological safety.

## Questions to Consider

- Which of these models or structures did you experience as a mentee?
- What were the strengths and weaknesses that you noticed in those models or structures?
- Which models or structures have you experienced so far as a mentor?
- What are the strengths and weaknesses you have noticed in those?
- Which models or structures that you have not tried, either as a mentee or mentor, sound intriguing to you and why? What might they provide that you have missed thus far?



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