

THE SCIENCE OF EFFECTIVE MENTORING IN STEMM

Renetta Garrison Tull, Ph.D.

Vice Chancellor

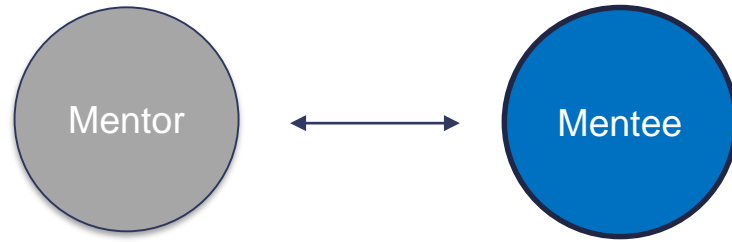
Diversity, Equity, & Inclusion – University of California, Davis

Successes in STEM Education, Research, and Workforce Preparedness
at Minority Serving Institutions | Thursday, June 9, 2022



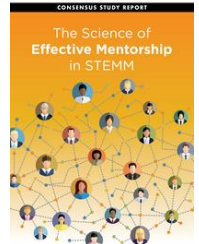
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MENTORSHIP MODEL: DYAD

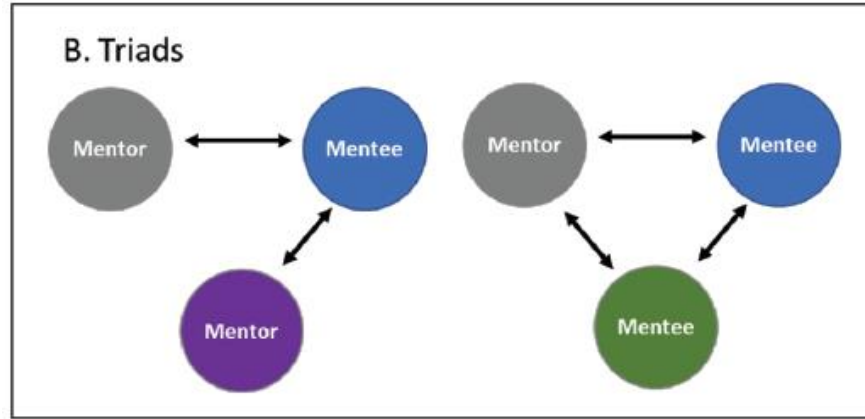
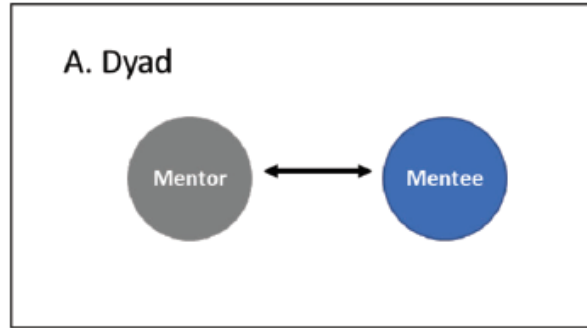


Reference: *NASEM Science of Effective Mentoring in STEMM*, Chapter 4;

Commissioned paper: "Mentoring beyond Hierarchies: Multi-Mentor Systems and Models," (Beronda L. Montgomery & Stephani C. Page) 2019

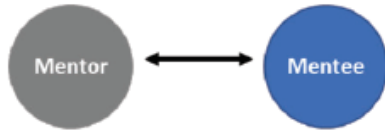


MENTORSHIP MODELS

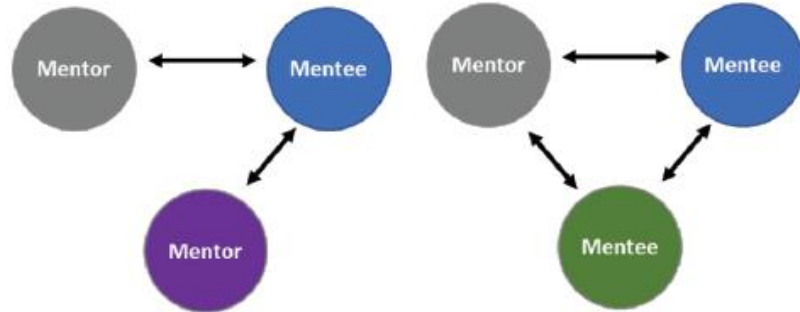


MENTORSHIP MODELS

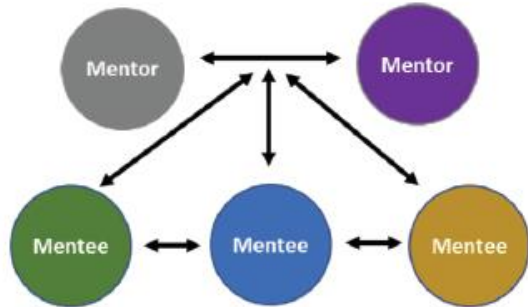
A. Dyad



B. Triads



C. Collective or Group

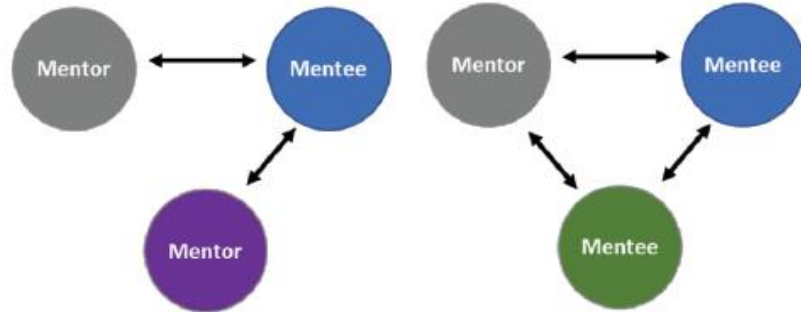


MENTORSHIP MODELS

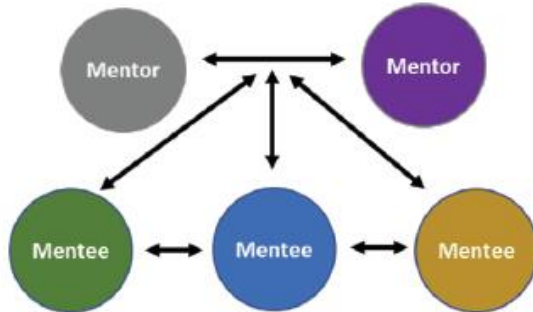
A. Dyad



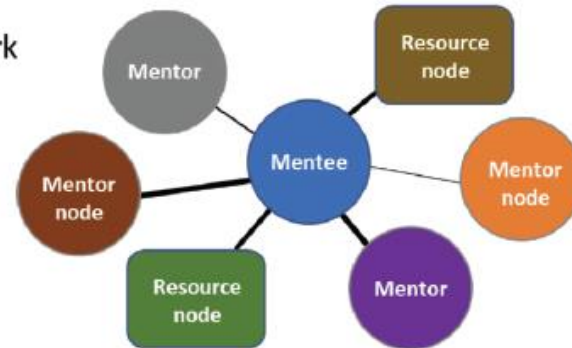
B. Triads



C. Collective or Group



D. Network



Reference: [NASEM Science of Effective Mentoring in STEMM](#), Chapter 4;

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RECOMMENDATIONS

1. Be clear about what mentoring is; consider the **operational definition**
2. Use **evidence-based approaches**; support mentorship – professional development for mentors and mentees
3. Have a **structured feedback system**
4. Recognize and **respond to identities**
5. Support **multiple mentorship structures**
6. **Reward** effective mentorship
7. **Mitigate** negative mentorship experiences
8. For agencies: **Integrate mentoring** education, tools, research, and evaluation into grant activities

Reference: [*NASEM Science of Effective Mentoring in STEMM*](#), Chapter 8, pp. 186-192.

