Faculty Mentoring Networks: A model for promoting teaching scholarship in quantitative biology education

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1. Completing a project through implementation and reflection

2. Working from a rich collection of content and pedagogical resources

3. Collaborating with a diverse community of peers

4. Public sharing of teaching materials and credit

Hypothesis: Participation in Faculty Mentoring Networks (FMNs) supports the development of teaching scholarship by influencing faculty identity, self-efficacy, and experience with reform.

There are many barriers to participation and persistence in biology education reform efforts. Promoting a scholarly approach to teaching can help faculty move beyond some constraints by changing expectations about the norms of professional practice.

FMNs incorporate four core design features to promote faculty teaching scholarship. The core features are:
1. completing a project through implementation and reflection
2. working from a rich collection of content and pedagogical resources
3. a supportive peer community
4. public sharing of teaching materials and credit

Our model for how teaching practices change

Traditional Teaching --- Scholarly Teaching

Identity --- how faculty define themselves professionally and describe their practice (Brownell and Tanner 2012).

Self-efficacy --- the level of confidence faculty have to change their teaching practice (adapted from Bandura 1997).

Knowledge/Experience --- the amount of first-hand experience developed from pursuing teaching scholarship.

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