

The impact of weekly TA training on teaching confidence

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Context & Methods

Course: MAT135, Calculus for non-math majors

Recruitment: Open to all 43 course TAs, call for participants at TA Meeting and via email

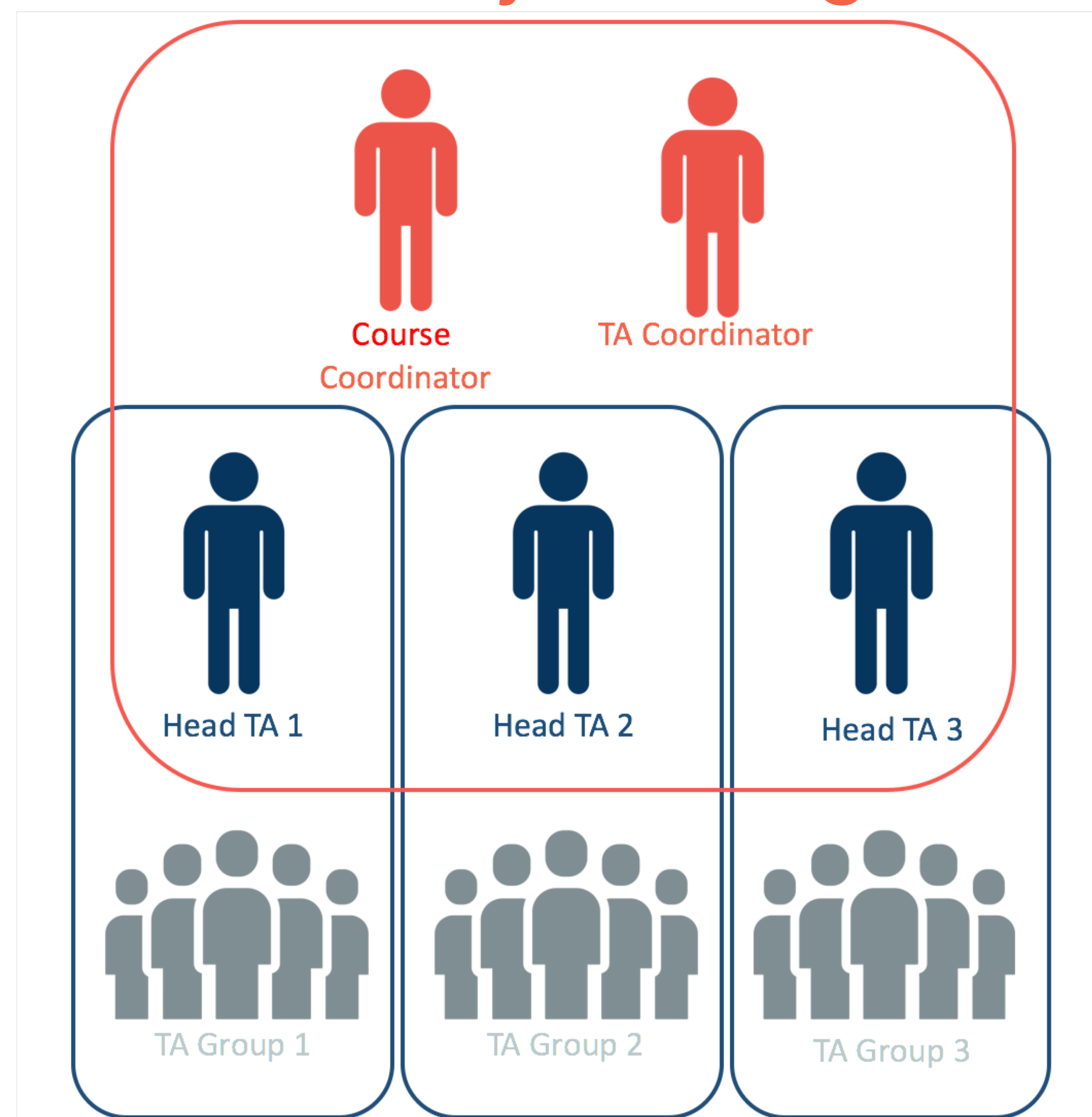
Method: Pre/Post Survey, administered online

- Pre-Survey: between teaching tutorials 1 & 2
- Post-Survey: at end of course

Survey Instrument: Graduate Teaching Assistant Self-Efficacy Instrument (DeChenne et al, 2012)

- Sample Item: How confident am I in my ability to promote students' confidence in themselves?
- Likert Scale: not very confident, neutral, confident, very confident
- 15 items, in addition to demographic questions
- Higher score = Greater confidence

Weekly Training



4 Weekly Meetings:

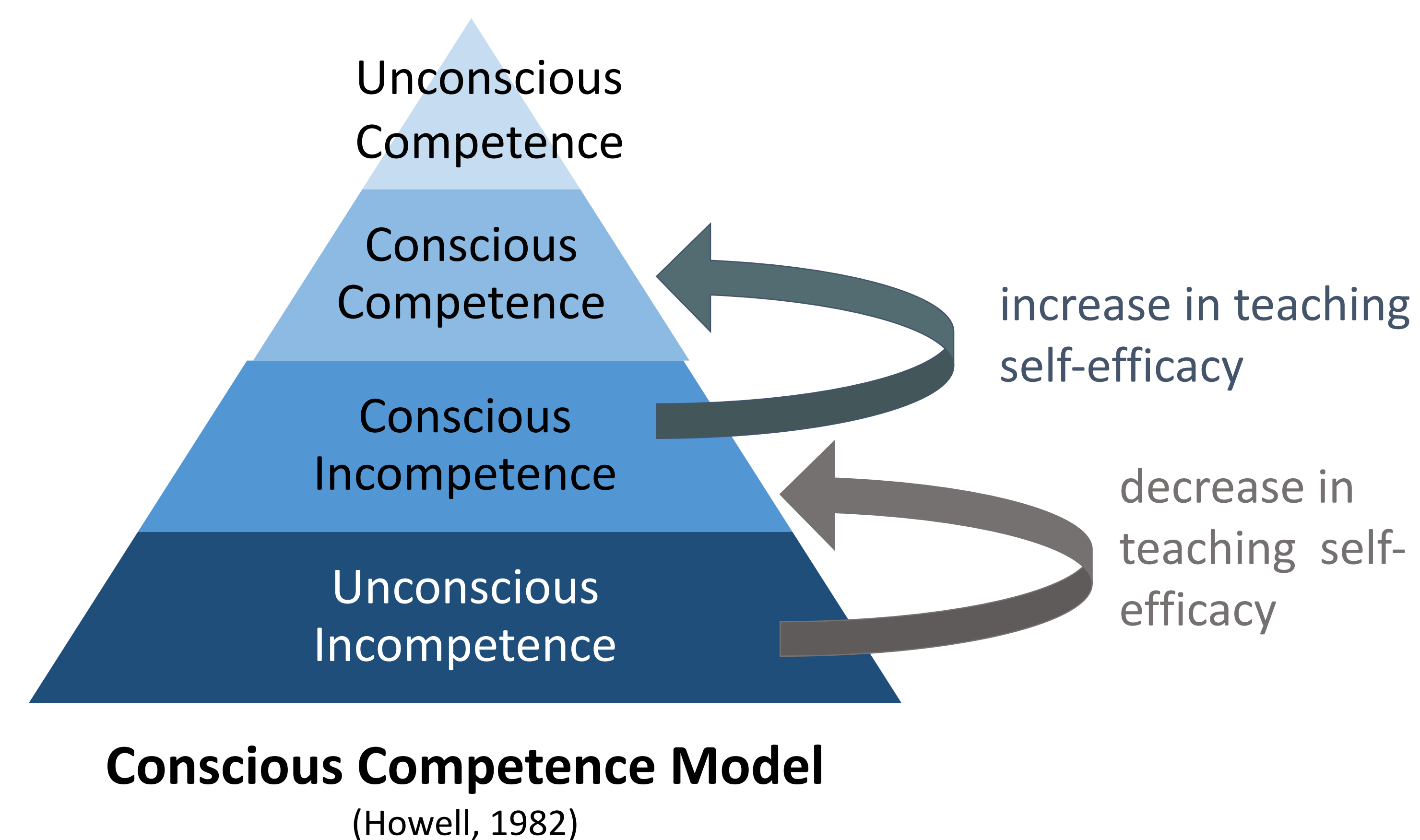
1 Head TA Meeting and 3 general TA Meetings

Key Takeaways

Teaching Assistants showed both **decreases** and **increases** in confidence to carry out teaching-related tasks over a term.

First-time TAs were more likely to experience a decrease in confidence.

Decreases in confidence may indicate overall growth.



For more information see:
www.math.toronto.edu/smt/research.html

DeChenne, S. E., Lesseig, K., Anderson, S. M., Li, S. L., Staus, N. L., & Barthel, C. (2012). Toward a Measure of Professional Development for Graduate Student Teaching Assistants. *Journal of Effective Teaching*, 12(1), 4-19.

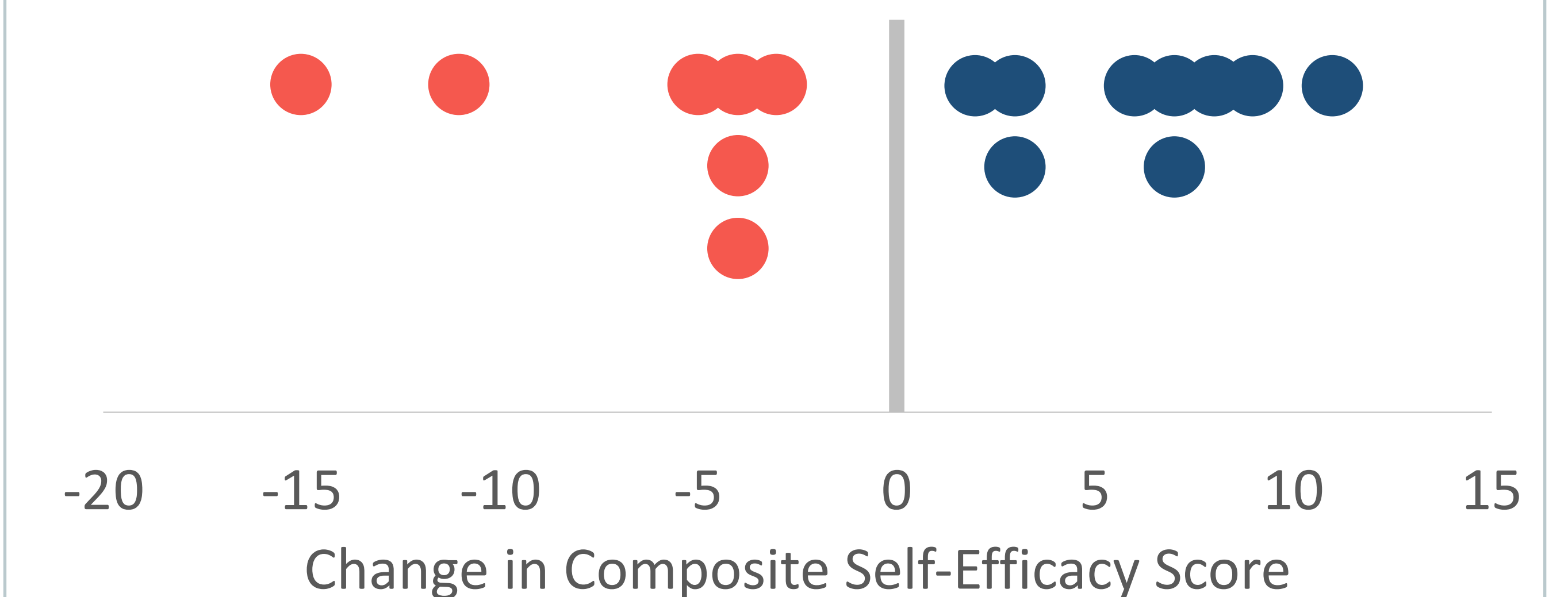
Howell, W. S. (1982). *The empathic communicator*. University of Minnesota: Wadsworth Publishing Company.



Results

TA Participants:

- 16 completed both pre- and post-survey
- 94% undergraduates
- 87% men
- 63% first-time TAs



Results:

- 44% of participants reported an decrease in confidence between pre- and post-surveys
 - all male, first-time TAs
 - no significant relationship between confidence and Teaching Identity or Mathematician Identity

Interpretation

- Decrease in confidence may indicate overall growth in the Hierarchy of Competence
- Inexperienced TAs became aware of how much they could develop as teachers.

Impact

Results are being used to design TA training for next year. Possible changes include:

- Including a talk by a senior TA on their journey
- Pairing experienced & inexperienced TAs
- Recording individuals' development of skills
- Discussing teaching confidence