

PRIMER Webinar

DISCUSSION GUIDE

For use with *Incorporating Active Learning into IACUC Training*, May 3, 2017



Overview

Active learning approaches have been shown to enhance knowledge transfer and increase the effectiveness of adult education by emphasizing critical thinking, analytical skills, and hands-on learning. During this webinar, two IACUC professionals shared their experience at the [Interagency Collaborative Animal Research Education \(ICARE\) Project Train-the-Trainers Institutes](#) and discussed how the techniques they learned have shaped their own training programs.

Background Reading:

- Bonwell, C.C. (2000). [Active Learning: Creating Excitement in the Classroom](#). *ASHEERIC Higher Education Report No. 1*, George Washington University, Washington, D.C., 1991.
- Prince, M. (2004). [Does Active Learning Work? A Review of the Research](#). *Journal of Engineering Education*, 93, 223-231. doi: 10.1002/j.2168-9830.2004.tb00809.x
- Yee, K. [Interactive Techniques](#). Licensed under CC BY-NC-SA.

Further Reading:

- (2013). [Evaluating the Cognitive Levels of Instructional Materials Using an Educational Taxonomy](#). In C. Dirks, M.P. Wenderoth, & M. Withers (Eds.), *Assessment in the College Science Classroom (W.H. Freeman Scientific Teaching)*.
- Freeman, S., McConough, M., Smith, M.K., Okoroafor, H., Jordt, H., Wenderoth, M.P. (2014). [Active learning increases student performance in science, engineering, and mathematics](#). *Proceedings of the National Academy of Sciences*, 111, 8410-8415. doi: 10.1073/pnas.1319030111
- McKeachie, W.J. (1987). [Teaching and learning in the college classroom: a review of the research literature](#). *National Center for Research to Improve Postsecondary Teaching and Learning*, 124.
- Smith, M.K., Wood, W.B., Adams, W.K., Wieman, C., Knight, J.K., Guild, N. and Su, T.T. (2009). [Why peer discussion improves student performance on in-class concept questions](#). *Science*, 323, 122-124. doi: 10.1126/science.1165919.

Discussion Questions

- If you have participated in a training or educational activity that included active learning techniques, what did you like most about it? What did you like least?
- If you haven't yet tried incorporating active learning into your trainings, what do you think may be causing your hesitation?
- Resistance to new ideas can be a barrier to implementation of active learning. The sentiment "what we're doing now works fine, why change it?" is common. What strategies can your organization

use to overcome this resistance? What are some other common challenges you've experienced with implementing active learning into your IACUC training?

- What resources (training room locations, supplies, time, personnel, etc.) does your institution need in order to integrate active learning into IACUC training?
- Active learning generally requires more facilitators than traditional lecture-style training. What steps might your institution need to take in order to provide facilitators with appropriate knowledge and experience?
- Group dynamics can play a large role in the effectiveness of active learning. What can facilitators do to ensure constructive group behaviors if participants come from diverse backgrounds?

Facilitation Tips:

- These discussion questions may be used for individuals, small groups, or in larger groups, to help actively learn the material presented in the webinar as well as provide a stimulus for further thinking.
- In group settings, a designated facilitator will be helpful to guide discussion. The facilitator should prepare in advance by reviewing the readings that have been provided by the presenter. The facilitator does not need to be an expert on the topic.
- The facilitator and participants should watch the webinar together. Begin the discussion session by introducing the participants to one another, and sharing general thoughts about the webinar content.
- The facilitator should then lead the group in considering the discussion questions. Read one question, and allow quiet time for participants to think. Encourage discussion by directly asking individuals, especially quieter ones, to share their responses. In large groups it can be helpful to break into smaller groups or pairs, which then share their thoughts.
- The facilitator should be an active listener, restating a comment or question for the group if clarification is needed. They can help the group to stay on topic and encourage further discussion by asking probing or follow-up questions. "Does everyone agree with that?" "I heard Jane say [this]. Does anyone want to suggest an alternative?" "What other possibilities can we consider?" are all good questions to ask.
- The facilitator can summarize the discussion occasionally, or ask a participant to synthesize what they've heard. This is particularly useful as a way to wrap up the discussion at the end.