

Promoting Active Learning in Lab Settings

FacDev in 5 KEY TAKEAWAYS



Watch the FacDev in 5 Video featuring Dr. Chelsea Lohman, Associate Professor, Cell and Developmental Biology.
tinyurl.com/FD5-Lab

KEY TAKEAWAYS



Active learning activities to boost learning.

1

Case-Based Scenarios

Use real or hypothetical problems to help learners practice critical thinking and problem-solving.

2

Reverse Demonstrations

Have learners teach back procedures and answer open-ended questions to deepen understanding.

3

Journal Club with Debate

Ask learners to critique and defend conflicting techniques or studies to explore diverse perspectives.

4

Experimental Flowcharting

Ask learners to map processes to help them visualize steps, dependencies, and potential challenges.

5

Failure Analysis & Troubleshooting

Share flawed procedures or unexpected results for learners to diagnose and suggest improvements.



DIVE DEEPER

Nguyen, W., et al. Development and implementation of video-recorded simulation scenarios to facilitate case-based learning discussions for medical students' virtual anesthesiology clerkship (MedEdPORTAL 2023).

Taverna, M., et al. Perception of journal club seminars by medical doctoral students: results from five years of evaluation (GMS J Med Educ 2022).

Wiles, A.M., Simmons, S.L. Establishment of an engaged and active learning community in the biology classroom and lab with Discord (J Microbiol Biol Educ 2022).

