

Faculty Development Workshops: Using AI Tools to Help Students Engage with Primary Literature

Discipline: Biology

Focus: Faculty and graduate students, Workshop series, Reading research

Overview

A workshop series for biology faculty and graduate students on using AI to help students read and work with primary literature. A needs survey shaped the topics.

Workshop sequence

1. **Pre-workshop survey:** current AI use in life, work, the discipline, and teaching; where AI is most useful; how it may be used in biology.
2. **Part 1, tools:** why and how to use AI in biology teaching; NotebookLM and Scite.ai for primary literature; prompt design; testing the tools in one's own area of expertise and critiquing the results.
3. **Part 2, assignment design:** setting learning goals and practicing with example assignments: finding sources, reading a paper, asking targeted questions about a paper, designing experiments, and critiquing or proposing alternative conclusions.
4. **Post-workshop implementation:** intro courses focus on comprehension, structure, and interpretation; upper-level courses on critique, synthesis, and argumentation. Introduce the CELT Student AI Use Scale.

Tools

NotebookLM, Scite.ai, CELT Student AI Use Scale

What the instructor observed

Colleagues use AI in very different ways. Regular discussion with colleagues and students helped both with using AI effectively and with sharing common challenges.

Advice for colleagues

Shape the workshops through collaborative discussion so the training fits participants' immediate needs and uses.

From the 2025–26 Teaching Innovation Institute (TII) cohort, University of Kentucky. Sources: 2025 TII Showcase posters (December 3, 2025) and the 2025–26 TII Project Takeaways survey.