CETL Guide: Active Learning & Engagement

📄 General Pedagogy Articles

Active Learning by Cynthia J. Brame, Vanderbilt University Center for Teaching

Less Content, More Application Challenge By Inara Scott

Using Playlists to Differentiate Instruction by Jennifer Gonzalez, Cult of Pedagogy

Playlists: A Path to Personalized Learning by Dr. Catlin Tucker

Constrained Choices & Critical Thinking by Bill Roberson and Brian O'Dwyer, EDUCAUSE

🧪 ⚗️ 🧮 STEM Specific Pedagogy

The Soul of My Pedagogy: A biologist teaches students to believe they can be better than they ever imagined by Bryan Dewsbury, Scientific American

Proof Points: College students often don't know when they're learning: Harvard experiment reveals the psychological grip of lectures by Jill Barshay, The Hechinger Report

Science exams don't have to be demoralizing: A practical guide by Katie Clements and Cynthia J. Brame, Vanderbilt University Center for Teaching

Beyond the Biology: A Systematic Investigation of Noncontent Instructor Talk in an Introductory Biology Course by S. B. Seidel et al. (2017), CBE-Life Sciences Education, 14(4).

Being Human in STEM (resources and activities)

Deep teaching in a college STEM classroom by B. M. Dewsbury (2020), *Cult Stud of Sci Edu, 15*.

Structure Matters: Twenty-One Teaching Strategies to Promote Student Engagement and Cultivate Classroom Equity by K. D. Tanner (2017), CBE-Life Sciences Education, 12(3).

📝 Active Learning Activities

Choice Boards, Digital Choice Boards, & Learning Menus

Hexagonal Thinking

Classroom Jeopardy

Microlectures

Community Building Activities (Equity Unbound)

Classroom Assessment Techniques (CATs) – formative

Project Zero's Thinking Routine Toolbox – strategies to scaffold and support student learning

FigJam – Jamboard alternative, virtual whiteboard

Miro – Jamboard alternative

Tiki Toki – interactive timeline maker

📚 Inclusive Teaching

InclusifiED (Dr. Hogan and Dr. Sathy's website)

Inclusify Your Teaching w/ Dr. Hogan & Dr. Sathy (Teaching for Student Success podcast)

Deep Teaching w/ Dr. Bryan Dewsbury (Teaching for Student Success podcast)

Creating Inclusive College Classrooms by Shari Saunders & Diana Kardia, University of Michigan CRLT

How to create mnemonics and finally remember students' names by Pooja K. Agarwal, Ph.D., Retrieval Practice

Increasing Inclusivity in the Classroom by Andrew Greer, Vanderbilt University Center for Teaching

Teaching for Student Success Podcast – researched-based ideas from inclusivity to ungrading to UDL