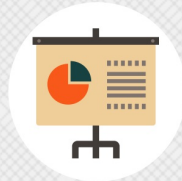


Active Learning with Technology

What technology-based learning activities can enhance active learning in your course?

TIP
1



Polling: Use multiple-choice or free-response polling as an icebreaker or to engage students during real-time instruction. Technology to Use: Poll Everywhere (<https://www.polleverywhere.com/>).

TIP
2



Role-Playing: Assign scripted roles to students (e.g., starter, summarizer, skeptic, wrapper) to guide student behaviors and group interaction in discussions or collaborative writing. Technology to Use: Blackboard Online Discussion Boards; Blackboard Wikis.

TIP
3



Concept Mapping: Check for students' conceptual understanding (rather than memorization) through development of concept maps. Technology to Use: Cmap Tools (<http://cmap.ihmc.us/>).

TIP
4



Problem-Based Learning: Engage students in collaborative teamwork to solve authentic tasks, issues, and problems. Technology to Use: Blackboard Groups & Group Tools.



Active learning includes a wide variety of learning activities "involving students in doing things and thinking about the things they are doing" (Bonwell & Eison, 1991).

Design for Active Learning

"I hear and I forget. I see and I remember. I do and I understand." -Confucius

- Create and plan learner-centered activities which promote critical thinking and deep learning.
- Map the learning outcomes addressed by each activity.
- Determine what students need to know for each activity.
- Let learning drive the activity; technology then enhances the learning.



Instructional Design Team (Stearns Center for Teaching & Learning)

Our ID Team is available for consultations to help Mason faculty develop or redesign your courses for active learning.

Please contact The Stearns Center instructional design team at idteam@gmu.edu.

Best Practices from Mason's Instructional Design Team (Stearns Center for Teaching & Learning)

How can instructors enhance active learning in the classroom?

Design Concept Maps for Active Learning

"Concept Maps are an active learning strategy where students use reasoning and critical thinking skills to understand concepts rather than just memorize or recall them. Design partially completed concept maps with all connecting lines labeled and some or all of the concepts missing for students; this method is known as concept matching mapping. As reported by researchers Wang & Dwyer (2003-2004), concept matching mapping is an effective strategy for facilitating learning, particularly for students with low to mid-level prior knowledge."

-Susan Campbell, Learning Tech Analyst, Stearns Center for Teaching & Learning

Assign Specific Roles for Group Work

"To increase student interaction in active learning, instructors are encouraged to structure group work so that students are aware of their duties and tasks."

One approach, role assignment, proves to be one of the most effective instructional approaches to structure any collaborative activity in asynchronous online environments. "

-Dr. Larisa Olesova, Senior Instructional Designer, Stearns Center for Teaching & Learning

Include 3D Printing Activities

"One way to enhance active learning in the classroom is by incorporating photogrammetry and 3D printing activities. These activities can be conducted in Th3 BUILD, a new 3D print space in the Johnson Center. Please contact Jim McLean (jmclean2@gmu.edu), instructional technologist, to learn more about the technology and me (kjoseph@gmu.edu) to learn more about the instructional design."

-Katrina Joseph, Instructional Designer, Stearns Center for Teaching & Learning

More about Methods for Active Learning!



CLASSIC WORK! Bonwell, C. C. and Eison, J. A. (1991). Active Learning: Creating Excitement in the Classroom. ASHE-ERIC Higher Education Report No. 1. Washington, D. C. The George Washington University, School of Education and Human Development. Retrieved from: <http://files.eric.ed.gov/fulltext/ED336049.pdf>

Wang, C.X. and Dwyer, F. M. (2003-2004). Effects of Three Concept Mapping Strategies and Prior Knowledge in a Web-Based Learning Environment. *Journal of Educational Technology Systems* 32(4) 377-397. [Full text available online through Mason Libraries].



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