ACTIVE LEARNING STRATEGIES FOR LARGE GROUP INSTRUCTION

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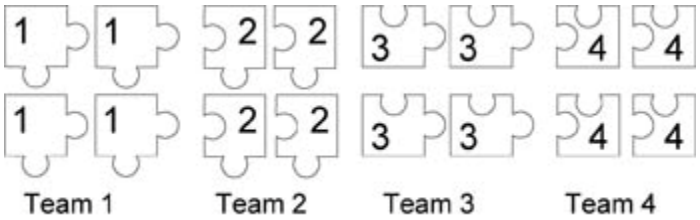
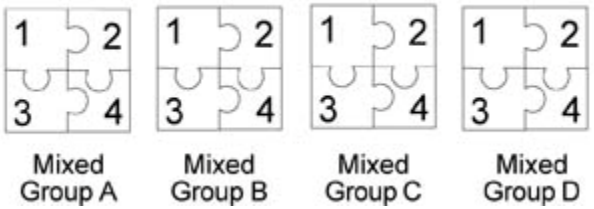
ACTIVITY	DESCRIPTION
Just-in-Time-Teaching	Instructor provides an interactive lecture: ➢ Students are assigned web-based Warm-Up Exercises (due by electronic transmission before class starts) ➢ Instructors in the interactive lecture adjust/organize lessons based on student responses ➢ Collaborative recitation is held on alternating days from interactive lectures; involves small group problem solving on a whiteboard. Instructors and GAs provide input when needed.
Peer-Reviewed Research Assignments	Large class divided into small groups of 3-5 students ➢ Each group selects research ideas from a list of topics generated by the instructor ➢ Groups subdivide assignments among members ➢ Students organize sections into a draft of a research paper ➢ Students exchange drafts with another group (preferably one working on the same topic) for peer-group evaluation (each student completes this evaluation individually) ➢ Instructor evaluates draft ➢ Groups have two weeks to rewrite their drafts based on the comments and to submit their final reports
Group Projects/Mini-conference	Groups are required to present their group project findings to each other in concurrent sessions of a mini-conference during the final exam time slot; students offered a list of topics to choose from. Group roles assigned: ➢ Group leader: Keeps the group on task, sets timelines, calls required meetings; makes sure everyone participates, has a voice, and helps others ➢ Research specialist: Leads efforts to find appropriate information ➢ Presenter: Organizes visual aids for final presentation and is the main presenter ➢ Author: Prepares the proposal, project summary, and bibliography.

Collaborative Learning Groups (CLGs)	Instructor assigns students to heterogeneous groups of 3-6. Student groups then: ➢ Choose a leader and a scribe (note-taker). ➢ Are given a task to work on together ➢ Produce a group answer or paper or project ➢ Share their answers with the rest of the class
Concept Mapping	Students work in small groups to create concept maps. A concept map is a way for students to: ➢ Create visual representations of models, ideas, and the relationships between concepts ➢ Illustrate the connections that exist between terms or concepts covered in course material by lines which indicate the relationship between each set of connected terms ➢ Identify and organize information and to establish meaningful relationships between the pieces of information These can then be shared, discussed, and critiqued.
Group Folders	Assign permanent groups of ~6 students; provide them with a group folder. Each group is presented with "realia" (real items found in everyday life) and groups are asked to handle the materials and perform a set of prescribed tasks (described in the group folder).
Learning Cycle Instructional Models (5E)	➢ **Engagement:** Gain attention with a reading, video clip, or provocative questions that connects with the students' prior knowledge ➢ **Exploration:** Additional learning tasks focus on concepts and skills necessary to understand these central topics ➢ **Explanation:** Provide additional examples and opportunities for students to demonstrate their understanding ➢ **Elaboration:** Deepen student understanding by providing new applications and implications of the central concepts and processes of the lesson ➢ **Evaluation:** Students are evaluated on what they have learned
Student Presentations of the Literature	➢ Several students per week (alone or in small groups) provide short summaries of articles from the primary literature of the topics being discussed; content is incorporated into exams.

Jigsaw	The Jigsaw Technique is a cooperative learning method that can be used in the place of a lecture. The instructor's role is to: ➢ Prepare several different, related assignments for the class. In the pictorial example below, the instructor devised four assignments, one for each of four teams. Each team then prepares one of the assignments.   ➢ Once each team is prepared, the class in the pictorial example above is divided into four new groups. Each group will have one team member from each of the teams. Each member of the group is responsible for teaching the rest of the group what he/she has learned from his/her team assignment. ➢ The group then puts all of the pieces together and completes a group task (a synthesis activity) that can only be answered once all of the team pieces are together (hence the name "jigsaw"). This latter part is crucial to the technique. This might be a case study, a follow-up question, etc. Source: http://serc.carleton.edu/NAGTWorkshops/coursedesign/tutorial/jigsaw.html
Fish Bowl	Students are given index cards, and asked to write down one question concerning the course material. At the end of the class period, students deposit their questions in a fish bowl. The instructor then draws several questions out of the bowl (either then or at the beginning of the next class period) and answers them for the class or asks the class to answer them.

Problem-Based Learning/Case Studies	Instructor leads a whole-class discussion about student insights into a contextually rich dilemma or situation requiring extensive analysis that requires application of content previously learned by other means. Use problems and cases that ➢ Provide natural break points for instructor guidance at 15-20 minute intervals ➢ Use instructor-led whole-class discussions ➢ Use peer group facilitators ➢ Are ill-structured, complex, and have incomplete information
Think/Pair/Share	After a question is posed to the group by the instructor ➢ Students think independently about the question, forming ideas of their own ➢ Students are grouped into pairs to discuss their thoughts ➢ Pairs are grouped into larger groups for discussion ➢ Larger groups share their ideas with the entire class

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