CHALLENGES OF TEACHING LARGE SMALL GROUPS

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ADVANTAGES OF LARGE GROUP LEARNING EXPERIENCES

- Lecture format well suited for communicating conceptual knowledge
- Lectures are formal, spoken, social events
- Lecture format:
  - increases vigilance
  - focuses attention
  - grants authority to lecturer

DISADVANTAGES OF LARGE GROUP LEARNING EXPERIENCES

- Not well suited for developing reasoning skills
- Not well suited for solving of practical problems
- Not well suited for dialogue
- Participants can too easily be passive
- Does not readily promote a sense of community

TYPES OF LECTURES

- Expository
- Interactive – Brainstorming
- Problem Solving - Begin with Question
- Case Study Method

ACTIVE LEARNING AND INTERACTIVE LEARNING

- Interactive learning optimal in small groups
- Communication between students more likely in small groups
- Communication in large groups will flow through the presenter/lecturer
- Active learning happens when the participants are participating, doing

ACTIVE LEARNING

- Active learning: students engaged in the process of building and testing his or her own mental model of a system from information that he or she is acquiring.
  - Modell, H.I., and J.A. Michael. Promoting active learning in the life science classroom: defining the issues. *Ann. NY Acad. Sci.* 701:1-7, 1993.

CHALLENGES TO ACTIVE LEARNING IN LARGE GROUPS

- Differences in expectations of faculty members and students
- Diversity of language and diverse interpretation of language
- Impact of past experience on building mental models
- Students are not experienced problem solvers
- Students and faculty must adapt to an unfamiliar learning environment

CHALLENGES TO TEACHERS: FACILITATE ACTIVE LEARNING

- Learning to discriminate important from less important elements
- Encourage comparison with previously presented/acquired information
- Assist students in identifying the meaning of the information
- Help them relate the information to their educational/professional goals

BASIC ISSUES IN LARGE GROUP ACTIVE LEARNING

- Advance Class Preparation: hand-outs, props, etc
- Presentation and Delivery
- Maintain the Individual Context: have students work individually and other times break into small groups

THE KEY TO ACTIVE LEARNING: IN CLASS EXERCISES

- Assign a task and give the students/ participants 30 seconds to 5 minutes to come up with a solution
- One or two per 50 minute session can provide enough stimulation to keep the class engaged

ACTIVE LEARNING AND IN CLASS EXERCISES: TIMING

- Use at the beginning to set the stage, e.g. a clinical case in which the cause becomes clear during the lecture
- Use in the middle for a break, can be used to consolidate presented material
- Use at the end, apply the information to a problem

IN CLASS EXERCISES I

- Map out processes, e.g. Disney organization
- Act out/Role play, assign parts, e.g. nerve impulse conduction
- Draw and label a flow chart
- Complete the next step in a derivation

IN CLASS EXERCISES II

- Present data for the students to graph
- Present graphs for the students to explain
- Present observations for the students to devise hypotheses
- Present hypotheses for the students to design experiments

IN CLASS EXERCISES: TECHNIQUES

- Individual Note Cards
- PRS (personal response systems)
- Partially completed maps, charts, etc.
- Pause and allow students to interact in pairs to summarize key points or develop questions
- Vote by show of hands

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- Weimer, Maryellen, Active Learning in Large Classes: Beyond Nuts and Bolts
- Davis, Barbara Gross, *Tools for Teaching*, Jossey-Bass, San Francisco, 1993.