Active/Cooperative Learning
Focusing on Student-Centered Learning

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Outline

- Old School vs Active/Cooperative Learning
- Types of Active/Cooperative Learning
- Structuring Lessons
- Learning Strategies & Classroom Assessment Techniques
- Discussion & Questions
We tend to remember . . .

10% Reading
20% Hearing Words
30% Looking At Pictures
50% Watching Movies, Looking At An Exhibit, Watching A Demonstration, Seeing It Done On Location
70% Participating In A Discussion, Giving A Talk
90% Doing a Dramatic Presentation, Simulating The Real Thing

Our Level Of Involvement. . .

Passive
Active

Adapted from Project LEA/RN, ISU
Key References


Old School vs Active/Cooperative Learning

Old Model of Teaching

Knowledge transferred from faculty to students; students passive vessel; faculty purpose is to sort/classify students; impersonal relationship between faculty & students and students & students; interdependence = competitive/individualistic; anyone can teach

New Model of Teaching -> focus on students & learning outcomes

Knowledge constructed by students with faculty guidance; students actively engaged in knowledge; personal transaction among students and between students & faculty; cooperative learning strategies & assessment techniques used; teaching requires learning about learning & is complex
Focus on goals & structures

Learning goal = a desired level of competence or mastery

Learning structure = the type of interdependence among students as they strive to accomplish their learning goals

Competition: I swim, you sink or I sink, you swim

Individualistic: We are each in this alone

Cooperation: We swim together or we sink together
Active Learning – aka Two or more heads are better than one

• Positive interdependence
• Promotive interaction
• Individual & team accountability
• Use of interpersonal & small-team skills
• Regular team processing of function

Sources: Johnson, R. and D. Johnson. 1994
          Johnson, D., R. Johnson, and K. Smith. 1991
Bloom’s Taxonomy - levels of cognition

- Knowledge
- Comprehension
- Application
- Analysis
- Synthesis
- Evaluation

Higher level Qs lead to higher level attainment of goals/objectives
Tuckman’s Model for Team Dynamics

- Forming
- Storming
- Norming
- Performing

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Structuring Lessons

• **Opening** - How to open class? How will you find out where the learners are at?

• **Objectives & Outcomes** - What is to be achieved? How do objectives fit into course goals? What do you want the student to be able to know or do?

• **Assessment** – How to measure attainment of objectives? Think formative in addition to summative. Craft Rubrics.

• **Strategies** - What learning strategies to use? Why these?

• **Questions** - What questions will allow students to learn and meet objectives?

• **Closure** – How will you end session & challenge your students as they leave?
4 Example Interactive Learning Strategies

- **Turn to Your Partner:** Formulate; Share; Listen; Create; Account
- **Read and Explain Pairs:** Read; Summarize; Agree; Relate; Repeat; Account
- **Note Taking Pairs:** Compare; Add/Correct; Share; Listen; Account
- **Problem Solving Pairs:** Compare; Explain; Paraphrase/Correct/Clarify; Reverse; Reach Understanding/Account
CATS – Classroom Assessment Techniques

- One Minute Paper
- Muddiest Point
- Paraphrasing
- Concept/Mind Maps
- Misconception/Preconception Check
- Opinion Polls in Class
How many rectangles can you find?

• Three groups

• What did you feel? What did you learn?
Discussion & Questions?